

Medical Lib.

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Clinical Medicine and Surgery

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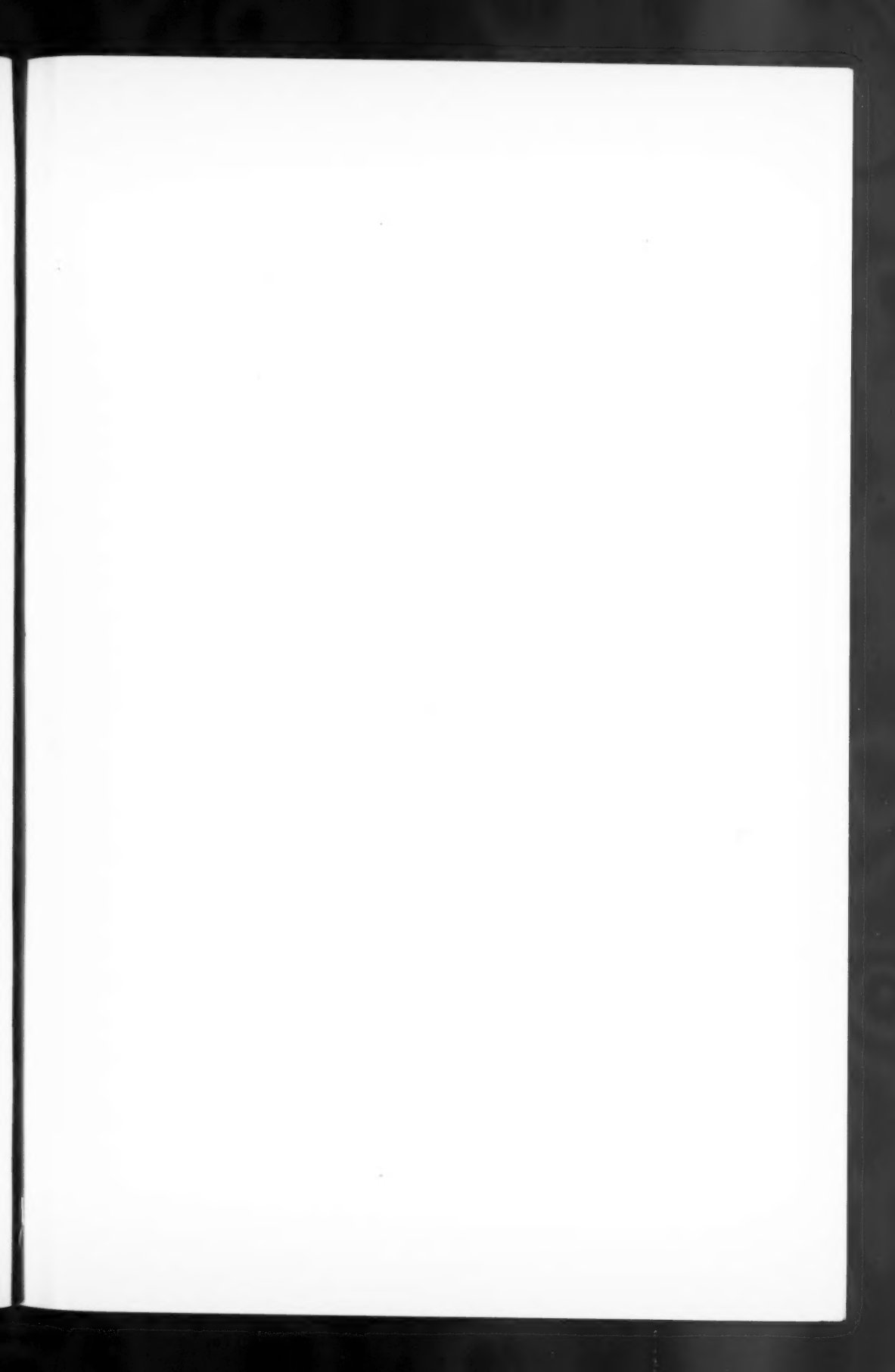
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FRANK BILLINGS, M.D., D.SC., LL.D.

CLINICAL · MEDICINE AND · SURGERY

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Frank Billings

IT takes, and always has taken, a long time for new discoveries in medical science to become "respectable," so when the big, powerful, twenty-eight-year-old farmer and school teacher from Iowa, Frank Billings, was graduated from the Medical School of Northwestern University, in 1881, the idea that bacteria could cause disease was so new (Pasteur's epoch-making announcement was made in 1864 and Koch's discovery of the tubercle bacillus in 1882) that the "authorities" still looked upon it as "foolishness."

But this husky young man, who had followed the plow at twenty dollars a month and hauled zinc ore at five dollars a round trip of two days, so that he could go to the Wisconsin Normal School; and then fought a frontier school and owned a drug store, which he sold at a profit to get the money to matriculate at Northwestern, had learned to keep his eyes and his mind open—which is a great achievement.

Internships were not obligatory in those days, but Billings served his at the Cook County Hospital, after which, so diligently had he studied the old textbook of an-

atomy, given to him by his family doctor in his farming days, that he was appointed a demonstrator of that subject at his Alma Mater. This was followed, three years later (because he had been attending to business and learning and doing things), by his promotion to professor of physical diagnosis and, in 1890, to the professorship in medicine, which he held for eight years.

During this time, the importance of the discoveries of Pasteur and Koch had been growing upon him so, in 1885, he went to Europe and studied bacteriology in Vienna, Berlin, London and Paris, returning with one of the first microscopes ever owned by a Chicago physician. He was the first in the Midwest to stain and identify the tubercle bacillus. This gives one an idea of the kind of student he was.

In 1898 his teaching activities were transferred to Rush Medical College, where he was professor of medicine until 1924, carrying the same title to the University of Chicago when the University absorbed the College, and holding an additional position, as dean of the faculty, for twenty-five years, beginning in 1900.

During all this time, Dr. Billings was

not merely teaching formally, but was attending physician at several hospitals, including the Cook County, and was practicing his profession to such purpose that he became one of the foremost consulting internists of his generation and received honorary degrees from Northwestern, Harvard and the Universities of Cincinnati and Wisconsin.

As an incident illustrative of his viewpoint as a practitioner, even after he was being called to attend such prominent people as Marshall Field and the McCormick family, it is related that George Pullman, the sleeping-car magnate, once called him in the morning, and reprimanded him when he arrived at three o'clock in the afternoon; whereupon Billings retorted, "My patients west of State Street (the poorer district) are just as important to me as those east (the 'Gold Coast')."

With all his other labors, Billings was an active and public-spirited citizen, a power in Organized Medicine, and a prolific writer on medical and allied subjects. Among many other services and achievements, he was president of the Illinois State Board of Charities from 1906 to 1912; took a prominent part in the reorganization and modernizing of Rush Medical College and the Presbyterian Hospital; was a moving spirit in organizing and conducting the John McCormick Institute for Infectious Diseases and the Sprague Memorial Research Institute; was a member of a long list of medical and other scientific bodies of local, state and national scope; and was president of the A.M.A. in 1903. When the great, new medical clinic was erected on the Midway, it was fitting that it should be dedicated as a memorial to the man who had played so large a part in making it possible.

Billings was always interested in medicomilitary matters, and received a commission as a first lieutenant in the old Medical Reserve Corps in 1907. With the beginning of our part in the War, he was

promoted to a majority and went to Russia as chairman of the American Red Cross Mission. Later he was on duty as a consultant, in the Surgeon General's Office and in the A.E.F., in France and England, and was discharged, in the grade of colonel, in June, 1919. In 1922 he was given the rank of a brigadier general in the Medical Reserve Corps.

Not only did Billings teach by direct precept and example, but by the written word, as well. It was he who first promulgated the idea of focal infection, which so altered the trend of medical thought. He was the editor of the important Billings-Forscheimer "Therapeusis" and the author of scores of valuable articles on professional subjects, as well as being an internationally known lecturer in his field.

The world will remember Billings chiefly as a teacher, writer and organizer, but those to whom he ministered, in clinic, ward and at the bedside, will always think of him as a great physician—a healer—a shining example of what a "family doctor" can be when he has the necessary native endowments and gives his mind and heart to the undertaking. His tall, broad, massive figure, with the great head of the scholar and the keen, heavy-lidded eyes of the artist, was a tower of strength and hope to uncounted hundreds, and his passing, on September 20, 1932, which is universally recognized as a serious civic and national loss, will be felt as a personal bereavement by many.

In the Medical Hall of Fame, at the University of Cincinnati, there is a list of one hundred fifty Heroes of Medicine. At the top of that list (because of chronologic priority) stands the name of the ancient Chinese physician, Huang-ti, and at the end of the scroll that of Frank Billings, justly placed there because of his outstanding performance as a clinician—a practitioner of medicine.

Your sole contribution to the sum of things is yourself.—FRANK CRANE.

THE DOCTOR AS A TEACHER

THE physician, who thinks that he is discharging his full duty when he cures or mitigates the distresses of those who directly seek his aid, has a decidedly inadequate conception of his duties and responsibilities. His community, his state and the Nation have furnished him the means of acquiring a basic education (and, frequently, a large part of his professional education as well), not solely that he may earn a livelihood and gain personal prestige by ministering to the physical maladies of individuals, but in order that he may be a leader and mold of the Nation's thought and a teacher of those less well endowed and trained than himself.

The physician's teaching functions may be divided into three parts: personal and individualized instruction of the members of his clientele and social group, given in conversation, as occasion arises; group or mass instruction of the laymen in his own or other communities, given to either general or special audiences; and instruction of the members of his own profession, by means of lectures or demonstrations, given at local, sectional or national medical meetings. The physician who does not discharge all of these functions, fairly regularly and at least reasonably adequately, is failing in the performance of his full duty.

The teaching profession has a field of activity on a par with that of the healing profession and has a highly specialized technic, which can be learned only by a rather long course of training. It is not to be expected that every physician should qualify himself as a professional school man; but every physician owes it to himself and to the nation to familiarize himself with the rudiments of pedagogic technic and to use this knowledge systematically in fulfilling his obligations as a teacher.

In order to give our readers the basic information required for the satisfactory accomplishment of their educational assignments, we have been so fortunate as to

secure a series of articles on the general subject of teaching technic, by Lieutenant Colonel Taylor E. Darby, of the Regular Army Medical Corps, who has proved himself to be a competent instructor in various military schools. The first of these, "Educational Psychology," appears in this issue, and the others will follow as soon as is practicable.

The third article, "Educational Presentation," should be watched for with keen attention and studied with diligence, for it contains direct and specific instructions of the highest value to every man who ever has occasion to make a public speech or write a paper for publication—and this should include every physician in the country.

If most of the speakers at our medical meetings would familiarize themselves with Colonel Darby's suggestions and use them regularly, those meetings would be far more interesting and helpful than they now are; and every physician who will resolutely and sincerely follow such a course of action, can and will make himself a power for good, in his community and among the leaders of his profession.

The function of education is to train one to express oneself in one's own way; to develop one's own uniqueness.—J. KRISHNAMURTI.

VITAMIN LITERATURE

EVERY physician, these days, encounters articles dealing with the vitamins every now and then (the readers of *CLINICAL MEDICINE AND SURGERY* do so frequently, as we consider the subject highly important), but few of them realize how vast the literature along this line is becoming or how far back it goes—not, of course, as actual references to specific vitamins, but as recognition of the "deficiency diseases."

A book has recently been published (reviewed in this issue) embodying by far the most complete bibliography of the vitamin literature which has yet appeared. Most physicians (and, in fact, most of the workers

along this special line) will be astonished to learn that this volume of 334 pages is packed, from cover to cover, simply with references to articles on vitamins, few of which consist of as many as five lines, the earliest reference being to an article on rickets, written in Latin in 1650 A.D.

While books like this are intended chiefly for research workers and libraries, it is well for all physicians to know that such a mass of information is available and to see to it that, even if they do not need this work among their own collection, the reference libraries they use are provided with copies, which they can consult as occasion arises.

Learning depends on practice; Intellect on former deeds.—SANSKRIT PROVERB.

CHANGING OURSELVES

WHEN people think of a pig, they picture a disgustingly filthy brute, wallowing in slime and smelling to high heaven—an unsavory subject of contemplation!

Is there any sound reason for believing that a swine is inherently dirtier than other animals? A tiny, suckling piglet, reared under wholesome conditions, is actually a pleasant, pink creature, as attractive in its attributes (except for the furriness and flexibility which characterize the carnivores) as a kitten. It seems quite probable that we have degraded the status and morale of the hog by subjecting it to an environment in which no beast could live and retain its self-respect.

No thoughtful person of today questions the importance of environment in molding our lives, nor can we doubt that our own conduct has powerful effects upon those others, a part of whose environment we are, and thus, indirectly as well as directly, upon ourselves.

There are still those who say, "You can't change human nature!" But they are wrong, as Dr. Alfred Adler and other psychologists have amply demonstrated. Of

course, no one man or group of men can change the mass reactions of humanity suddenly; but the race is made up of individuals like us, and if each man would change himself, even a little, for the better, the effect upon "human nature" would be multiplied in almost geometric proportion.

Before a man can *change* himself he must *know* himself. There are two ways to do this: by reading rational books on psychology and applying their suggestions to himself with merciless impersonality; and by listening, whenever possible, to adverse criticism of his ways and manners and then estimating honestly how much of it is deserved and why. If we can truly and frankly see and acknowledge to ourselves the faults which we all possess, we will feel a real yearning to correct them; and then the battle is half won.

Many physicians are accused of carelessness by their patients who, upon coming to this conclusion, seek other medical advisors. The men so accused may be thoroughly competent professionally and may overlook nothing which is physically essential for their patient's recovery; but the layman is a poor judge of scientific ability and bases his estimate upon the things which he can readily see or otherwise observe.

If the doctor's clothes are unkempt, his linen and fingernails not above suspicion, his face unshaved, his office untidy, his records fragmentary or chaotic and his punctuality in keeping appointments at a low ebb, people are perfectly justified in assuming (even though it may not be true—as it frequently is) that his professional work will be of a similar general character. Why, even the fact that a physician fails to send financial statements to his patients regularly may quite readily suggest to the thoughtful ones that he is a careless man.

Many a good and remunerative patient has been alienated by the fact that the physician he consulted had only one vocabulary for all occasions—that he lacked the

tact and perspicacity to adapt his conversation to his audience. One cannot profitably talk to a group of highschool students in the same language one would employ before a medical society, nor to a bashful young bride in the same vernacular one would use with a hard-boiled stockbroker or a steam-shovel engineer.

Above all, most of us are liable to overlook the vast importance of that social lubricant we call *courtesy*—the thoughtful attention to seemingly insignificant matters which makes the difference between the gentleman and the boor. It is so easy to give people wrong impressions of us, and so hard to correct them once they are made! Time spent in cultivating charm of manner and precision of consulting-room or bedside technic is a vastly profitable investment.

At this time, many physicians are not so busy as they would like to be, so this is an ideal opportunity to spend part of the time which might be devoted to worrying about hard times in clear-eyed self examination and in a study of our professional environment.

Because the latter is more obvious and more readily correctible, it may well claim our first attention. Clean curtains, a new picture or two and a general overhauling of every part of the office will not prove prohibitively expensive for anyone. Check the items, as they now stand, one by one, and try to estimate how they would strike a reasonably fastidious and unbiased stranger. Then make them measure up to the standards of such a hypothetical patient.

If there has been inattention to keeping appointments promptly or slovenliness in making records or neglect to keep abreast of scientific and professional advancement, admit it and change it. It is surprising how much better work can be done in an orderly and attractive (not elaborately-furnished) office and according to a well-planned and meticulously-executed schedule!

If our pseudo-confreres, whom our French brethren allude to as the "bastards of Aesculapius," are taking patients from us; if people do not give us the regard we crave; if we feel that we are slipping, it is *our own fault*. Let us determine why it is so and correct the conditions.

We sometimes feel that we are not respected as members of our profession used to be. If so (and it is probably true), it is we who have caused the alteration. If we can change ourselves, so that we will be worthy of respect, we will receive it—to *exactly the degree we earn it*, neither more nor less—and the other good things of life will come to us in comparable measure, as a natural by-product of so changing ourselves and our environment that we become better doctors, better neighbors and better all-around human beings.

I have noticed that a dirty or disarranged doctor's office tends to drive patients away. If your business needs a tonic, try cleanliness and neat arrangement, in both front office and back.—RALPH R. PATCH.

SELF-RESPECT

THE man who does not respect himself should scarcely be surprised if others do not respect him. The pretender may get away with it for a while, but not for long. The truth, like murder, will out.

Upon what, then, does this indispensable, though intangible, thing, self-respect depend?

To respect himself a man must have a sense of definite purpose in life—a clearly seen goal of endeavor of some sort, it matters little, at the moment, what it may be, for as he grows and progresses it will change. He must have a consciousness of capacities in reserve, so that he is free from dread, and, to some extent at least, an understanding of and feeling of comradeship with the world and the universe of which it is a part. He must be able to reverence the high and worthy and regard every living thing, including his fellow men, with good will, sympathy and compassion.

From the standpoint of activity, he must be, not merely a capable member of his profession, trade or other economic group, but a good citizen, with all the many things that that phrase implies, a wise, informed and tolerant leader and, above all, a competent, well-rounded human being.

Such a man draws sustenance and reinforcement from all the multiplex life about him and radiates power and peace. He cannot fail to command the respect and admiration of his fellows, *because he deserves it.*

The plain fact remains that men, the world over, possess amounts of resources which only very exceptional individuals push to their extremes of use.
—WILLIAM JAMES.

WAR CONDITIONS IN PEACE TIME

DURING the War, every non-combatant was eager to have a part in the work of the Red Cross. Not only did we give money freely, but our women gave much time to sewing, knitting and preparing dressings in the Red Cross work rooms.

Although no guns are roaring today, our country is in the midst of a period almost as critical as that of the War, and because of the profligacy and self-seeking of the national, state and local governments, we are burdened with taxes which

have had no precedent in time of peace.

Again, as in the tense and dangerous days of 1917-18, the Red Cross is meeting the situation bravely; but because the male population is now in civilian clothes and the newspapers carry no battle bulletins, many people fail to sense the emergency and the necessity for loyal and generous support of the great national agency of relief.

Last year the Red Cross spent \$1,600,000 in unemployment relief alone, aiding more than 300,000 needy families. Help was also given to 400,000 veterans. This takes money!

Not all of us can go to the work rooms to sew and help in directly personal ways, as thousands of our women are doing in these times of peaceful warfare; but every man and woman who has a job can show the real spirit of thanks and appreciation for that

blessing by answering with a dollar to the Red Cross Roll Call, between Armistice Day and Thanksgiving.

"Inasmuch as ye have done it unto one of the least of these . . ."

The line forms on the right. Step lively and hand over your contribution with a smile!



LEADING · ARTICLES

Goiter and the Internist* (Comments on 12,000 Goiter Patients) By Israel Bram, M.D., Philadelphia, Pa.

A STUDY of over 12,000 individuals suffering from thyroid disorders has convinced me that goiter is not merely a lump on the neck, but a local expression—a *result* of a constitutional derangement. Since this is rather a complex subject, no one mode of treatment—surgical, medical or x-ray—is to be regarded as standard in the management of goiter. In this field of endeavor individualization is the great need and is, indeed, the missing link in diagnosis and treatment.

Unless incontrovertible, obvious proof accompanies figures, statistics indicating the value of any given mode of therapeutics in goiter are misleading. Such terms as "slightly improved," "much improved," "returned to economic usefulness," and the like are too elastic to be scientific. Surgeons and internists are each apt to claim ninety to ninety-nine percent of cures by their respective measures. Unless patients are seen in person and carefully examined at least four times a year, for a minimum of five years after "recovery" is reached, with such factors as pulse rate, weight, metabolic determinations and other check-up procedures to confirm, not mere subjective improvement, but conclusive recovery, statistical figures, no matter from what source, are worthless.

CLASSIFICATION OF THYROID ENLARGEMENTS

The first step in the elucidation of the subject is obviously the adoption of a satis-

factory classification of thyroid enlargements. I have found the following very useful:

Surgical or Neoplastic Goiters

- Adenomas
- Cysts
- Fibrous tumors
- Calcareous tumors
- Any combination of the above.

Nonsurgical or Non-neoplastic Goiters

- Simple hypertrophy
- Colloid goiter
- Puberty hyperplasia
- Exophthalmic goiter (Graves' disease).

Any so-called simple, nonsurgical goiter may become toxic. This does not alter the therapeutic consideration, except to make the case one of greater urgency in the need for attention. Nearly every goiter encountered in practice was preventable, and even in nearly every case of encapsulated or surgical goiter there was a time when the growth was in its incipency and unencapsulated, demanding, but not receiving, appropriate medical attention. Generally speaking, the history of the case, the experience of the examiner in the careful use of his senses, including inspection, palpation and auscultation of the goiter and the use of diagnostic tests, will yield the necessary information and decide whether surgical or non-surgical treatment is required.

Briefly, the following differential points are of service to the general practitioner:

*From the Bram Institute for the Treatment of Goiter and Other Diseases of the Ductless Glands, Upland, Pa.

Surgical Goiter

- 1.—Usually occurs in established adult life.
- 2.—Usually of more than five years' duration.
- 3.—Often very large; occasionally intrathoracic; frequently asymmetric.
- 4.—Genuinely neoplastic and adventitious.
- 5.—Resistant and often nodular to the touch; thrill rare.
- 6.—Bruit rare.
- 7.—Thyroidectomy is complete and satisfactory treatment in non-malignant types.

Nonsurgical Goiter

- 1.—Usually occurs during childhood, pre-adult or early adult life.
- 2.—Duration varies from several weeks to three or four years, as a rule.
- 3.—Rarely very large or intrathoracic; usually symmetric.
- 4.—Not genuinely neoplastic nor adventitious, but usually a compensatory reaction.
- 5.—Usually somewhat yielding to the touch; thrill characteristic of hyperplastic type. A growing colloid goiter may offer resistance to palpation.
- 6.—Bruit nearly always present in hyperplasia of exophthalmic goiter.
- 7.—Thyroidectomy is irrational and leads to recurrence.

These differential points are not infallible, but the experienced clinician will find them satisfactory enough for practical purposes. Occasionally, a non-neoplastic thyroid enlargement, having continued without adequate attention, may be found in the process of adenomatous infiltration, cystic degeneration or both. A case of this sort cannot be truly classified as either surgical or nonsurgical, so that treatment depends upon what pathologic entity predominates within the mass. Again, a goiter, irrespective of its pathologic nature, may extend into the thoracic cavity and produce pressure symptoms, thus forcing upon us an urgent surgical indication. And finally, we must be on our guard, in so-called toxic goiter, clearly to differentiate toxic adenoma from exophthalmic goiter.

Non-surgical goiter (and this is applicable most particularly to exophthalmic goiter) is to be looked upon as local expression of general conditions. To put it simply, in non-surgical goiter it is *not the neck that makes the body sick, but it is the body that makes the neck sick*. Correct the causative bodily condition, and the thyroid enlargement, much as a sponge unloads itself, shrinks and the gland is again normal in size.

HYPERTHYROIDISM AND EXOPHTHALMIC GOITER ARE NOT SYNONYMOUS

The term hyperthyroidism is self-explanatory, indicating the presence of symptoms due to excessive thyroid hormone in the blood. This may arise from one of

two causes: (1) the ingestion of thyroid extract; (2) the assumption of excessive secretory activity by a previously-existing simple thyroid enlargement. The latter is commonly termed toxic adenoma; i.e., a state of thyroid hypersecretion assumed by an old-standing adenomatous, cystic, or other type of neoplastic thyroid enlargement. Hyperthyroidism must not be confused with exophthalmic goiter or Graves' disease.

There are many points of similarity to be observed between toxic adenoma and exophthalmic goiter, rendering the differential diagnosis difficult at times. In both conditions there exist loss in weight, nervousness, palpitation, tachycardia, trembling, insomnia, fatigability and a high basal metabolic rate, but toxic adenoma and Graves' disease are not identical conditions. That they are two different diseases can be seen from the clinical facts outlined on the opposite page.

Modern surgery saves countless lives by expertly applied thyroidectomy in cases essentially neoplastic in nature, and in the treatment of goiters partially or completely located within the thorax. On the other hand, thyroidectomy, when applied to the nonsurgical goiters, is irrational. This applies especially to exophthalmic goiter or Graves' disease.

THE PSYCHIC FACTOR IN GRAVES' DISEASE

The constancy of a form of psychic trauma as the exciting cause of exophthalmic goiter is striking. In fully ninety per cent there are elicited such factors as

Toxic Adenoma

(Hyperthyroidism; secondary toxic goiter; "basedowified" goiter)

- 1.—Family history of simple goiter in 30 percent of cases. No significant history of nervousness.
- 2.—Patient usually of middle age.
- 3.—Predisposing cause of symptoms is preexisting adenoma.
- 4.—Exciting cause unknown—not psychic trauma.
- 5.—Onset of symptoms very gradual.
- 6.—Goiter has existed for years before onset of constitutional symptoms.
- 7.—Goiter nodular and usually large; often asymmetric; no throbbing, thrill or bruit.
- 8.—Tachycardia is not marked and may be ameliorated by sleep and digitalis.
- 9.—Hypertension is common.
- 10.—Tremor is inconstant; somewhat coarser than in exophthalmic goiter.
- 11.—Emaciation is slower than in exophthalmic goiter.
- 12.—No exophthalmos.
- 13.—Fatigability is not a major symptom.
- 14.—Hyperidrosis and dermatographia inconstant and not intense.
- 15.—No characteristic mental peculiarities.
- 16.—Iodine therapy rarely results in marked improvement; usually results in aggravation of symptoms.
- 17.—Thyroidectomy is conclusive and followed by recovery.
- 18.—No crises or remissions.
- 19.—Following thyroidectomy, no relapses nor recurrences.
- 20.—Spontaneous recovery never observed.

vehicular accidents, with or without physical injury, intense worry, disappointment in love, death of a loved one, marital incompatibility, financial losses and such other situations as may be classified under psychic trauma. In the remaining ten percent I feel confident that such a history would be obtainable were the patient's memory better, or were he or she less reticent and more cooperative in detailing the history.

No doubt, for each individual developing Graves' disease immediately after a

Graves' Disease

(Exophthalmic goiter; Basedow's disease; Parry's disease; Flajani's disease; hyperplastic goiter; dysthyroidism)

- 1.—Usually no history of simple goiter; history of nervousness, exophthalmic goiter and diabetes commonly elicited.
- 2.—Patient usually is a young adult or an adolescent.
- 3.—Predisposing cause of symptoms is the singular peculiarity of the individual.
- 4.—Exciting cause usually psychic trauma.
- 5.—Onset of symptoms a few days or weeks following exciting cause.
- 6.—Goiter often absent; if present, it occurred some time after constitutional manifestations asserted themselves.
- 7.—Goiter is usually moderate in size, symmetric, and usually presents throbbing, thrill and bruit.
- 8.—Tachycardia is marked and not notably affected by sleep and digitalis.
- 9.—Hypotension is common.
- 10.—Tremor is constant and finer than in toxic adenoma.
- 11.—Emaciation is rapid.
- 12.—Exophthalmos is common.
- 13.—Fatigability is a major complaint.
- 14.—Hyperidrosis and dermatographia are common and intense.
- 15.—Characteristic quickening of cerebration and emotionalism.
- 16.—Iodine therapy usually results in transient remission.
- 17.—Thyroidectomy is inconclusive, with questionable recovery.
- 18.—Characteristic crises and remissions.
- 19.—Relapses and recurrences after thyroidectomy are common.
- 20.—Spontaneous recovery under expert medical attention is the rule.

psychic trauma, there are at least fifteen or twenty going through similar experiences who are capable of resisting this disease. In other words, subjects of exophthalmic goiter constitute a distinct type of humanity, unduly susceptible to the disease in the presence of this exciting cause.

It therefore appears obvious that Graves' disease, whatever its intrinsic nature and whatever its physical manifestations, enters through the nervous system, chiefly the psychic mechanism. And it is through this pathway that treatment is largely to be

instituted. A phlegmatic person is immune to the disease (note the paucity of cases among Negroes, Mongolians and Malaysians) and the feeble-minded and savages appear immune. It is in individuals whose mental development, and more particularly the emotional side of it, is complex that susceptibility to the disease is most marked.



Fig. 1.—The left picture is that of a girl of 16 with a simple colloid goiter of four years' duration. The right photograph is that of the same patient, completely recovered as the result of several months of medical attention.

To ignore this startling factor by regarding this disease as hyperthyroidism, curable by thyroidectomy, is to sweep aside the best known phase of the etiology and, in the treatment of these individuals, to court failure at the very outset. True hyperthyroidism, as observed in toxic adenoma, a condition which does not depend upon psychic trauma or type of individual, requires little, if any, mental attention, thus explaining the brilliant surgical cures in this affection.

Graves' disease or *exophthalmic goiter* is not goiter, and the sooner it is removed from the classification of goiter and placed in the category of constitutional conditions, the sooner will there be expediency in diagnosis and rationality in treatment.

In Graves' disease every inch of the body is involved. In the active syndrome there is a complete dysfunction of the vegetative nervous system and of the entire chain of ductless glands. Involvement of the thyroid is a mere constituent of a rather complicated picture of clinical events. We do not know whether the thyroid is in a state of dysfunction or hyperfunction, but we have reason to believe that the involvement of this organ is probably a defensive reaction against irritating conditions arising elsewhere. Moreover, students of this problem realize that the para-

thyroids, too, are in a state of hypofunction, as are the pancreas, the gonads, the posterior pituitary and the suprarenal cortex. In addition, the anterior pituitary, the thymus and the suprarenal medulla are hyperactive. This, plus the obvious admixture of vagotonic and sympathetotonic manifestations and the instability of the emotional makeup, lead to the obvious inference that the thyroid swelling is no more the cause of the disease than is the enlargement of the spleen the cause of typhoid fever.

TREATMENT OF SIMPLE, NONSURGICAL GOITER

Iodine should not be employed in the treatment of simple hypertrophy and colloid goiter. This drug increases the colloid content of the thyroid. Thus, through iodine administration, small goiters are swollen to the extent of occasioning pressure symptoms, and nontoxic goiters may become toxic. The basic cause of thyroid hypertrophy and colloid goiter is the call of the body for more thyroid hormone, and the thyroid in its efforts to supply the demand undergoes enlargement. Even then the body tissues are not satisfied, for most of these patients present a rather low basal metabolic rate, varying from zero to minus twenty or thirty percent. The logical treatment of these forms of thyroid enlargements consists in (1) the elimination of discoverable causes, and (2) the administration of thyroid substance under careful guidance. For obvious reasons x-ray treatment is almost as strongly contraindicated as is thyroidectomy.

METABOLISM TESTS

Generally speaking, basal metabolic determinations are not to be regarded as absolutely indicative of a given diagnosis nor the sole criterion in progress. This laboratory procedure is purely relative in value, to be looked upon merely as supplementary to evidences of a broader nature in support of conclusions. In my experience, ten percent of the determinations made, even with greatest precision insofar as operator, instrument and patient are concerned, are to be taken with the proverbial grain of salt. These exceptions at times appear so glaring as to occasion doubt concerning the remaining ninety percent. Take, for instance, the case of a physician suffering with exophthalmic goiter in crisis. There was marked exophthalmos; the heart

rate was 140 per minute; there had been loss of fifty pounds in weight; and trembling, hyperidrosis, restlessness, extreme weakness and all other evidences of typical Graves' disease were present. Repeated basal metabolic determinations yielded a rate varying between minus two and plus two percent.

Again, I cite the case of a man who, after a satisfactory period of cooperative attention presented no more evidences of Graves' disease. The heart rate, formerly 160 per minute, had been normal for many weeks, there was an increase of approximately forty pounds in weight, and the eyes, thyroid gland, nervous system and capacity for work were normal. The basal metabolic test, however, persisted in revealing a rate of plus forty to plus fifty percent. Shall we regard this person as sick? Rather throw the metabolic tests out of consideration!

Take another of the numerous instances in which metabolic tests are not only unreliable, but misleading: This is the case in a woman who still required intensive attention, as evidenced by a boggy, hyperplastic thyroid, a heart rate still from ninety to a hundred per minute, and lack of all attributes of normality. The basal metabolic rate was minus two to six percent. Shall we regard this patient as normal?

Apropos of metabolic tests, it seems to me that they indicate but one thing—the degree of thyroid participation in the syndrome of exophthalmic goiter; not the degree of severity of the syndrome itself. An individual may be severely ill of Graves' disease, even in crisis, as in the first case cited, and yet evince little, if any, thyroid hyperactivity *per se*. This is sufficient evidence to prove that the metabolic rate is by no means an infallible indication of recovery from the disease.

MANAGEMENT OF EXOPHTHALMIC GOITER

The following guiding principles in the treatment of exophthalmic goiter or Graves' disease are advocated:

1.—An earnest attempt must be made to ferret out and remove all etiologic factors, whether intrinsic or extrinsic. Though I believe too much emphasis is placed upon infectious foci in the pathogenesis of this disease, these, of course, must always be corrected, preferably when the patient is markedly improved.

2.—Rest in bed is important; but unless

serious cardiac lesions exist, a complete stay in bed rests neither body nor mind. A respite from bed of at least three hours morning and afternoon is highly desirable in the average patient.

3.—The diet must be largely of non-flesh quality and of ample quantity. As a rule, a sufferer from Graves' disease should con-



Fig. 2.—The left photograph is that of a woman of 31, suffering with rather severe exophthalmic goiter or Graves' disease of seven years' duration. The basal metabolic rate was plus 90 percent, the heart was 170 per minute, and there was every evidence of severe crisis.

The right photograph is that of the same patient, taken one year later. As the result of medical treatment the patient is now entirely recovered and enjoying perfect health. There was a gain of 30 pounds in weight; the basal metabolic rate is plus 2 percent; the heart is entirely rhythmical and its rate 70 per minute; goiter, exophthalmos and all other signs and symptoms of the diseases have been eliminated. Remark: At this writing the patient has been well for 9 years.

sume twice as much food as is taken under normal conditions. The gastrointestinal difficulties frequently encountered must be overcome by all means at our disposal, for a good digestion is a most useful ally in this disease.

4.—Drugs may be employed only after careful individualization. Circulatory, nervous, gastrointestinal, renal and other symptoms must be managed according to indications, as viewed through the medium of experience. The quinine salts, eserine, ovarian substances, posterior pituitary, suprarenal cortex and mild sedatives are medicaments which have their field of usefulness. On the other hand, it is of the utmost importance to know what not to give: In this category are included thyroid extract, suprarenal medulla, the opiates, the iodides and digitalis.

5.—Psychotherapy in the treatment of Graves' disease is vital. These patients have been lacking in mental tranquility for a

long time, and this lack is frequently the etiologic factor. If psychic harmony be procured, the most stubborn obstacle to recovery is removed. Every effort must be expended to acquire and establish physical and mental peace and poise for the patient.

In patients who still possess recuperative power, who are not insane, and in whom unequivocal cooperation in treatment is obtainable, the properly equipped internist is capable of effecting complete recovery, in the average patient, within from four to twelve months. In a properly equipped sanitarium, such as our Goiter Institute at Upland, Pennsylvania, this duration of attention may be reduced to one fourth or one fifth the time required were the patient under home attention.

In the average case, partial or complete restoration to average earning capacity is attained after several weeks of attention. Often splendid results are obtained with the patient at work. This presupposes, however, that the syndrome is of moderate

severity and the vocation presents no objectionable features.

In the event of unequivocal cooperation, patients treated in the manner herein indicated do not relapse. Taught how to eat, how to sleep, how to rest, how to work, and even how to think, such a patient is permanently restored to usefulness and happiness and enjoys unprecedented health.

The solution to this problem is not far off. With the appearance of an adequate number of internists who can virtually understand and speak the language of these sufferers, there will be a cessation of surgical interference in this affection. It is then that conditions will become reversed and surgeons will turn their patients over to the internist. It is interesting to note, in this connection, the plaint made to Robert McCarrison by a prominent English thyroid surgeon: "I wish there were more physicians who would undertake the treatment of these cases. If there were, fewer would need to be sent to the surgeon."

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Educational Psychology*

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THIS discussion deals with the fundamentals of educational psychology and shows the basic relationship between psychology and the teaching process.

Psychology has been defined as the science of the mind, of the phenomena of mind, of mental processes, of normal mental reactions. Summed up, it may be considered as the knowledge of human nature, without which one is at a tremendous disadvantage in all dealings with one's fellow men.

Psychology treats of the normal mind, whereas psychiatry deals with the abnormal. It is hard to tell where one leaves off and the other begins. It has been claimed by some authorities that everyone is more or less abnormal on some one or more points, and we can all agree that the other fellow is. It is with one corner, only, of psychology that I shall now deal—educational psychology; but in that corner may be found, in varying degrees of importance only, many of the important basic instincts

and mental qualities which go to make up that abstract thing, the mind.

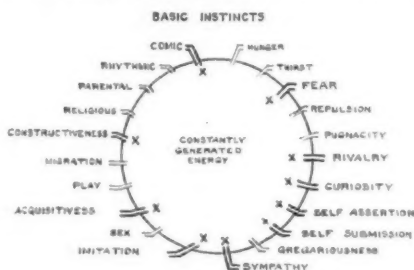
It does not require an expert to apply psychology. Everyone, whether or not he has made a formal study of it, is more or less conversant with this science. Taken in its broad meaning, a knowledge of human nature, one knows just as much psychology as one knows human nature. Moreover, everyone applies it daily, in every contact with his fellow men, to further his own ends, whether good or bad. Naturally, the more adept one is the better one's results.

It follows that the instructor should be such an adept, for he is dealing with the individual and collective human nature of his pupils at all times. He must be enough of a psychologist to gauge their normal mental reactions to any given stimulus or depressant. He must be able to establish with them that mutual bond of sympathy which any good leader establishes with those he is leading; for the instructor, of course, is the leader of his group in every sense, and must remain so; otherwise he will fail or attain only a mediocre success.

*This is the first series of three articles on the general subject of Teaching Technique.

THE BASIC INSTINCTS

The human mind and conduct are constantly influenced by approximately 21 basic instincts.[†] Together they may be considered as a dynamic force or energy which is constantly being generated within an en-



closed space, the mind; therefore there must be a constant exit. All of these are present in every normal individual. The only unknown quantity is the strength of any particular instinct, which differs with individuals; for example, some have more curiosity than others.

By proper stimulation, any of these basic instincts can be aroused; and conversely they may be, temporarily, repressed or blocked. To block an instinct does not abolish it. It merely remains latent for the time, and the extra energy thus pent up must be given an outlet elsewhere. Any one, or a few, however, may safely be temporarily blocked by giving them an outlet at some more desirable point. If all or too many are blocked at once, it soon results in some form of antisocial conduct or violence.

It is an accepted fact, also, that, in any normal group of individuals, about two-thirds will respond in approximately the same way to any given stimulus, while one-sixth will underact and one one-sixth will overact this general average. No two will react exactly alike, owing to individual differences. The same differences exist between different races and nations, and between different strata of society in the same race or nation.

There is a considerable difference between the psychology of the individual and that of a group. The group reaction is that of a composite mind. This reaction is really easier to control than that of the individual, for the crowd reacts to the leader or to

emotion, rather than to the cause. Moreover, in every group there are subgroups, and in each is a keyman. If one would maintain control over the group he may do so most easily through the keymen. That is the underlying principle of any successful organization.

All of these instincts have a direct bearing on our daily lives, but only ten have a direct bearing on the teaching process, so let us consider those, seriatim.

Fear

Fear in the student is not physical fear, of course, but is a fear of failure, of appearing ridiculous, of being lacking in intelligence or knowledge which he should have. It may be better described as worry—and worry is made up of many little fears. It is a great drawback to learning, therefore it is an instinct which should be blocked by the instructor. A friendly attitude toward the group and the individual; the use of tact at all times; and an assurance, given or implied, that no insurmountable obstacles are ahead, are usually all that is necessary to block this instinct.

Rivalry

Rivalry is usually a healthy instinct and an aid to learning or any accomplishment. To do a thing better than someone else brings a gratification which is its own recompense. In the teaching process it is the basis for giving awards to the students standing highest. Usually of little intrinsic value, such awards may be the constant stimulus for hard work throughout a long course. Rivalry, however, carried too far, becomes an unhealthy instinct, for it brings out all the little meannesses of human nature—even those connected with self-preservation.

Curiosity

Curiosity is only a minor aid to instruction. It impels the student to examine and inquire into the cause and effect of anything which is new to him. With familiarity, this soon wears off; but initially it is an aid in obtaining the attention which leads to that interest which is so essential in teaching.

Self-Assertion

Self-assertion is particularly strong in our race. It is a necessary quality of every leader. It is the basis of self-respect and aggressiveness, and is sometimes closely

[†]Note: For an enumeration of the basic human instincts, see diagram attached. Those marked with a cross have a direct bearing on the teaching process.

akin to the instinct of pugnacity. Self-assertion is demanded of the instructor and is both permissible and desirable in the student, within reasonable bounds, of course. It represents, largely, one's initiative.

Self-Submission

Self-submission is just the opposite of self-assertion. It has nothing to do with servility or an inferiority complex, but is the foundation on which rests discipline and respect to superiors. It is a recognition of law and prestige. Properly balanced with self-assertion, it gives us the ideal combination.

Sympathy

Sympathy, from our viewpoint, implies an understanding on the part of the instructor of the tasks set before the student, together with his, the instructor's responsibility. On the part of the student it should assume an understanding of the task before the instructor, together with the effort he is making in the student's behalf. When both have the correct viewpoint, it can be seen that they are working toward the same end, thus creating a community of interest.

Imitation

Imitation is a great aid to instruction. It is the tendency to do as others are doing. It is the whole basis of the demonstration method of teaching. This is the simplest and quickest method; and while not always the best, because it does not require any original thinking, imitation offers a shortcut to correct performance, without testing the thing in the pitfalls of experience.

Acquisitiveness

Acquisitiveness is the tendency to acquire and hoard desirable things, either material or abstract. In the student it stimulates him to acquire knowledge. Owing to one of the little weaknesses of human nature, the pleasure of possession, whether of knowledge or worldly goods, is enhanced by publicity or recognition. This sometimes takes the form of a very undesirable ostentation on the part of the possessor. On the other hand, one may accept an official recognition of such an accomplishment as learning with all modesty, and the knowledge that such accomplishment will receive such a reward is a powerful stimulus to effort. Consequently, when a student has done good work, he should be so informed.

The leader in any field who fails to pat a successful worker on the back and say, "Well done," has failed to grasp one of the most important and basic factors in all the realm of psychology. Not only does it stimulate the worker to extra effort, but it increases his good opinion of his leader about a hundred percent.

Constructiveness

Constructiveness is the instinct which really achieves. Everyone has a tendency to mold things or conditions to suit himself, as witness any man's workshop. It is the basis of work and pride in workmanship. It explains why the busy man is happy, while the idle one is bored. On the other hand, this instinct can be blocked by too much work—by instruction too difficult to be absorbed. The student becomes confused, realizes that he is not getting it, therefore he is not constructing anything. There is a happy mean between the two, which is the ideal; and in this connection, it is essential that the instructor, in drawing up his work, first accurately gauge the average intelligence and understanding of the pupils and aim at this average. To miss it far, either way, results in failure. Intelligence and understanding are often used synonymously, but, in their individual meanings, a student's intelligence is his ability to learn, while his understanding is the sum total of what he has learned. Both must be carefully considered.

The Comic

The comic instinct cannot be overlooked by the successful instructor—not for entertainment, but for utility. It is a powerful instinct and may temporarily dominate all others. It may be used to block other undesirable instincts or to gain attention and interest. Moreover, mirth, at a common cause, at once establishes a great bond of sympathy between the instructor and his pupils. To have them laugh with you occasionally is a very desirable thing; to have them laugh at you is a tragedy. Consequently, the instructor must constantly be on the *qui vive* against appearing ridiculous in any way.

CONSTANT MENTAL QUALITIES

In addition to these ten basic instincts which have a particular bearing on instruction, there are certain constant mental qualities to be considered. Here again,

fortunately, we do not have to consider all. For our purpose we may limit them to five: habit, attention, interest, imagination and suggestibility.

Habit

Habit is something which is acquired, in distinction to instincts, the tendency to which, at least, is innate. Whether these habits are good or bad, one becomes more and more proficient in their use. There is no effort connected with a well developed habit. It will work even under stress and strain.

Attention

Attention is mental alertness and is a necessary precursor to interest. It is a temporary mental state, whereas interest is a more permanent one. Attention is both active and passive. Passive attention is the kind one pays to the ground over which one is passing; active attention is the kind one gives to a sharp, vigorous remark. It is active attention we want in teaching and it is gained and held by animation, interest and good delivery.

Interest

Interest is a more permanent quality and the *sine qua non* of learning. It is what makes the student want to learn. It must first be aroused and then sustained. It may be aroused by the same steps which may be noted in the psychologic approach of a good salesman—and we are all salesmen. These steps consist in first gaining attention; then pointing out the great importance and desirability of the thing to be learned; next showing how it would be of real personal value or advantage to the student; and then showing that he can really acquire it without any unreasonable sacrifice. When we have reached that stage we can say, "Sign right here on the dotted line." Once aroused, this interest is sustained by an interesting presentation of the subject, together with a real show of personal interest on the part of the instructor himself. The student will give back to the instructor exactly what he puts into it—and nothing more; consequently, if the instructor is not interested in his subject, he cannot expect his students to be so.

Imagination

Imagination is a mental quality which the instructor must utilize. It is the ability to form mental images. This quality differs

widely in individuals and in races. Fortunately, it is one which may be increased by practice. The instructor may readily utilize this quality by increasing his own ability to paint clear word pictures of things he must describe and cannot demonstrate. This requires some imagination on the part of the instructor, for the principal trick in painting a word picture is, first, to conjure up a vivid mental image of the thing to be described, and then describe that which we see clearly in the mind's eye, just as if it were before us.

Suggestibility

Suggestibility is a wide and fertile mental field, always open to the instructor, and suggestion, when given properly and repeatedly and properly timed, usually brings conviction in the end.

The degree of response of a student to suggestion depends partly on the method of suggestion, but principally on the degree of his knowledge and will power, for that is his measure of resistance. With a low-grade student the suggestion, in the form of simple statement or affirmation is usually sufficient, provided the one who suggests it has sufficient prestige. But, in persons of a higher type, a simple statement does not nearly suffice. We must also give the reasons, or resort to logical reasoning.

No matter how made, the initial suggestion may be greatly strengthened by repetition, frequency and last impression, in about that ascending order of importance. Repetition means repeating the thing at once; frequency means repetition at intervals; and last impression implies embodying it in the final summary.

The rapidity with which we forget the bulk of what we hear is rather astounding. In memory testing, it has been determined that, as an aid to memory, frequency has about three times the value of repetition, and last impression about twice the value of frequency. Regardless of the accuracy of such tests, we all know the great teaching value of these factors; so we may drive home our important points by using all of these methods of suggestion in succession; that is, first stating it with reasons, then repeating it, then repeating it at intervals, and finally including it in the summary.

It is apparent, then, that educational psychology, when stripped to its basic factors and deprived of all its psychologic

camouflage, really comprises ten of the basic human instincts and five of the constant mental qualities. These are all-important working tools in the hands of every in-

structor, which he should employ skillfully and consciously in every contact with those he is teaching.

Surgeon General's Office.

A New Diet for Patients with Sinus Diseases and Frequent Colds

By E. V. Ullmann, M.D., Portland, Oregon

IN two articles written within the past half-year, I have outlined a dietetic treatment for sinus patients, which has given excellent results. Although the actual experience with this diet has not been longer than two years—certainly not enough time to pass a definite judgment on any kind of treatment—the results have been so encouraging that I feel justified in publishing them.

The cases which I selected concerned patients subject to frequent colds, suffering from subacute or chronic sinus trouble and those who were referred as suspected of sinus infections because of other symptoms (rheumatic, arthritic or neuritic complaints). Particularly these last-mentioned cases, which so far have been classified under focal infections and have been submitted to one or many sinus operations, were the ones that showed a definite improvement and gave me the encouragement to continue this dietetic treatment persistently. For many years I have been observing this type of patient with special interest and have been looking for symptoms indicating constitutional changes, rather than for local symptoms in their sinuses. As soon as these patients are referred to the roentgenologist who finds some cloudiness in their sinuses or a slight swelling of the mucous membrane, they become sinus patients.

ACIDITY AND TOXICOSIS

By examining the acidity of the urine of these patients I found that all of them, if properly diagnosed and classified, showed a high acidity, indicated by a low pH. This also is the case in the vast majority of acute colds and acute sinus suppurations.

All patients with acute or chronic sinus suppurations show symptoms of acidosis. The more acute the sinus conditions, the more acid the urine. A similar parallel can

be drawn in chronic cases: The longer the duration, the more acid the urine. The acidity of the urine indicates the degree of acidosis. The only reference in literature concerning this observation is the research of Mittermaier, who examined the acidity of the nasal discharge. A comparison between his examinations and mine is exceedingly interesting. The nasal secretion is the more acid, the more acute the symptoms. It is the more acid, the more purulent the discharge. In chronic cases the acidity depends on the duration of the case. The longer the duration, the more acid the discharge. The reaction of the secretions changes gradually towards alkalinity with recovery.

The findings in secretions of allergic cases, which seldom are purulent, were not so regular and proved in a large percentage to be alkaline. Mittermaier, however, drew no practical conclusions from his highly interesting observations as to the metabolism.

I have not thus far systematically applied the diet to allergic patients, because I found that about 50 to 60 percent do not show definite symptoms of acidosis. In the few cases of allergic sinusitis on which the dietetic treatment was tried, it was not followed by any improvement.

SODIUM AND CALCIUM SALTS IN THE BODY

Having followed the literature on the influence of salt in nutrition, I paid attention to the amount of salt taken by my patients and, not only asked them as to the amount of salt they took with their food, but also examined the chlorides in their urine. I found that the majority of them eliminated from 12 to 20 Gm. per day and, in some instances, 25 Gm. of sodium chloride.

The daily need of the body for sodium chloride is estimated to be about 1.5 to 2.5

Gm. per day, depending on the body weight. One gram of sodium chloride retains 70 grams of water in the tissues. If one restricts sodium chloride to the amounts necessary for the body requirements, one can notice the dehydrating effect of this measure, not only by the increased diuresis which follows the restriction, but also by a more or less rapid drying of the mucous membranes of the nose and respiratory tract.

It has always been emphasized that the American diet, especially, is low in calcium. A report on diet from the Mayo Clinic, August, 1931, states: "The American diet contains a large proportion of concentrated foods, low in vitamins, residue and alkaline minerals and high in carbohydrates and acid minerals. Such a diet, lacking certain protective foods (a term applied to milk, eggs and fresh leafy vegetables), will conduce to an early advent of degenerative diseases."

Since the fundamental examinations of Luithlen, we have known of the important part that calcium plays in inflammatory processes. Animals fed on an acid diet, poor in calcium (oats), will show a more intensive reaction if certain irritants (croton or mustard oil) come in contact with their skins than animals which, previous to the experiment, have been fed on an alkaline diet, rich in calcium (green leafy vegetables).

We also know from these experiments that the various rations replace each other in equivalent amounts. For instance, if large amounts of sodium are given, the calcium elimination will increase in amounts equivalent to the sodium which has been absorbed. This phenomenon is less noticeable in normal individuals than in those who show symptoms of malnutrition. I refer to biochemical examinations which I have made together with H. Eppinger. The important role of calcium, as a counteracting agent in inflammations, has been emphasized in many publications. If sodium is eliminated in the intake, the biologic effect of calcium, in relation to inflammatory reactions, will be enforced and the diet will work antiphlogistically. Sodium has a stronger affinity than has calcium for the tissues, especially the skin and mucous membrane.

Urbach has described favorable results after restricting salt in several diseases of the skin and mucous membrane. The fact

that lupus vulgaris of the skin and mucous membrane reacts very favorably to a diet poor in salt, which leads, in the majority of cases, to a cure with smooth scars, can no longer be doubted by anyone who has seen the great number of patients successfully treated by this method in the many lupus institutions of Europe.

If large amounts of sodium chloride are taken, a great deal of it will be retained in the skin, mucous membranes and other tissues and the calcium will be expelled. The sodium retained will diminish the effects of the calcium. On the other hand, with the reduction of sodium chloride, the calcium action will prevail and show its effects by counteracting inflammation.

The lack of calcium has been recognized for a long time in patients with sinus diseases. The prescribing of high doses of calcium has become a routine method for every well informed physician. If, however, one does not reduce the intake of sodium, the greatest part, if not all, of the calcium given as a drug will be eliminated, because of the stronger affinity of sodium for the tissues. What we really want in our patient is the assimilation of calcium. If the diet is arranged so that it contains comparatively large amounts of calcium in a natural state, and sodium is reduced to the amount of the body requirements, we shall achieve better results than by having the patient live on an unbalanced diet, heavily salted, and giving huge doses of calcium salts which cannot be assimilated.

THE "SINUS DIET"

The diet which I have advised is directed toward counteracting acidosis, and therefore must be alkaline. In order to increase the effect of calcium, it must be poor in sodium chloride and, to prevent the eventual lack of vitamins, it must consist of fresh food only.

As much as the importance of vitamins has been stressed, the important problem of malnutrition is still in the dark. We constantly read of the necessity of providing the organism with vitamins A, B, C, etc., but all these vitamins have, as far as science has so far discovered, relations only to certain diseases. With the exception of rickets, none of the clearly defined avitaminoses are common in the United States. Xerophthalmia, beriberi, scurvy, pellagra, osteoporosis and night blindness are very rarely observed in this country,

but people constantly talk about malnutrition and deficiency diseases. In ignorance of the lacking essentials in these conditions the patients are given cod-liver oil and lemon juice, expecting these to counteract malnutrition, while at the same time they are allowed and even recommended to eat canned and processed food, because the scientific departments of the canneries testify that vitamin A, B, or C is still present in their products.

As has been said before, the known vitamins do not seem to be lacking in the forms of malnutrition or deficiency diseases to which I refer. From the research on vitamins in general we know that all vitamins are contained in fresh food; therefore, if we feed individuals suspected of malnutrition and deficiency diseases fresh food only, we should not need to wait until new vitamins are discovered, but could, in the meantime, prevent malnutrition.

At the present time we are processing and breaking up food, taking special care that vitamin A or B should survive, but we are not concerned with the other substances which are destroyed. By living on a variety of fresh foods the occurrence of malnutrition and deficiency diseases is very improbable. An alkaline-ash diet, consisting of fresh food only, and the restriction of salt to the amount contained in natural food represents the principles of the diet here recommended.

The difficulty most frequently encountered is the lack of experience in preparing the food tastily without salt. People have become so accustomed to the use of large amounts of salt that its restriction, to some people, is nearly as difficult as the prohibition of smoking, drinking or the use of opiates. However, a series of approximately 200 patients have taught me that the majority of those who actually suffer from continuous colds and have had unsatisfactory experiences with sinus operations, submit themselves enthusiastically to the diet and do not encounter any hardships, even if they continue it for a long period of time. All they need is to notice an improvement, which is almost sure to come if the diet is correctly applied.

After the clinical status of the patient is determined and the diagnosis established, a 24-hour urine specimen is tested for acidity. As the acidity of the urine changes many times during the day, depending, not

only on the food eaten, but also on the labor and breathing capacity of the individual, a single urine sample is of no value. The use of litmus paper has not been satisfactory as an indicator, because it is not delicate enough. If urine turns blue litmus paper red, it is much too acid; and if it turns red litmus paper blue, it is much too alkaline. The colormetric method expresses the pH and is the only scientific way to estimate the acidity.

In determining the acidity of the urine, a fairly accurate estimate can be obtained of the blood acidity. Normal blood shows a pH of 7.35. Urine with a pH of 6.6 to 6.2 is far too acid. It indicates that such a urine is from 5.6 to 14.1 times more acid than blood. In the type of sinus diseases mentioned, the urine frequently shows figures ranging from 5.8 to 4.8, indicating that it is from 35.4 to 562.3 times more acid than blood. While all this knowledge has been developed in laboratories during the last 15 years, little use is made of it by the practitioner and none by the specialist.

The acidity, together with the chloride content, will allow a fair judgment of how the patient should be managed. When the acidity and chlorides are found to be high, the patient should be put on a drastic diet for one or two days; meaning that the patient is given raw fruit, fruit juices, raw salads, vegetables and vegetable juices only. During this time the chloride content of the urine will be considerably reduced, showing an amount of 3 to 5 Gm. on the third or fourth day. On the second or third day the regular diet should be started, consisting, roughly, of 600 Gm. (20 oz.) of meat per week; 1 quart of milk per day; 1 to 1½ oz. of carbohydrates per day; fresh vegetables and fruit, raw or cooked, can be taken in any amount desired. The needs for fluid are satisfied by the fruit and vegetable juices.

Alkaline drugs are unnecessary. The diet must be regulated as to hours and a definite program outlined, which naturally corresponds with the particular condition and taste of the patient. All salted foods, such as salted butter, smoked, cured or preserved meats, salted sauces and canned foods, should be forbidden.

The more acute the case, the quicker the reaction. Patients with an acute cold will usually respond very readily. Most of them become so convinced of the merits

of the diet that they voluntarily keep to it. These are the patients who report not to have had colds for one to two years, while before they kept to the diet they contracted several colds during the year.

In chronic cases the results are slower in manifesting themselves. When sinus symptoms are associated with other complaints, such as rheumatism or neuralgic pains, these concomitant complaints will, as a rule, improve first. If a patient has reached the stage of marked improvement which usually occurs between the second and third weeks, he can easily be managed as to the further keeping of the diet. In a

great many patients the diet will prevent unnecessary surgery, and in a large majority will prevent colds.

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The Toxic Overload

By William A. Hinckle, M.D., Peoria, Ill.

LIFE is an eternal warfare between the forces of construction and those of destruction; between those forces that would preserve our bodies and those that would destroy them. When the forces of construction are in the ascendancy we live and experience a sense of wellbeing. When the forces of destruction predominate we are sick and tend to dissolution.

This eternal conflict is largely a chemical warfare. Destruction is characterized by the elaboration of harmful toxins; construction, by their elimination and by the production of antitoxins.

The forces of destruction may be present and active only at a single point, but as a rule they attack on several fronts. The primary point of attack may be but a preliminary skirmish, which precedes and makes possible a general assault all along the line. The defensive forces of the body may be ample to successfully combat and subdue the invaders along a single sector, yet be insufficient to cope with a combined attack by all the besieging forces. If such combined assaults fail, the invaders may dig in and carry on indefinitely a guerilla warfare, with attending pain, suffering and even chronic invalidism.

To illustrate; the bodily defenses may be ample to cope with and to overcome the invasion of microorganisms and toxins from an apical abscess, as evidenced by the number of such abscesses that produce no obvious symptoms. But when this infection spreads to or makes common cause

with infected tonsils, sinuses, appendix, fallopian tubes or gall-bladder, the defensive forces may be overwhelmed. Again, the defense may be able to cope successfully with all these but, in so doing, is so weakened and hard-pressed as to leave with insufficient protection that great battle front, the colon.

IMPORTANCE OF THE COLON

It is the toxic overload that determines the ultimate outcome of life's battle and the fate of the individual. The myriads of bacteria and the enormous amount of toxins constantly present in the colon are only too often the source of this toxic overload.

From time immemorial both laymen and physicians have given tacit assent to this well established fact, but have usually failed to recognize its full significance. If the bowel has been evacuated during the previous twenty-four to forty-eight hours, we have been content to ignore the toxic residue in the colon. If evacuation has not taken place we have given an enema or a physic thinking that, thereby, we have done all that is necessary. We have apparently ignored the fact that the toxic residue in the colon may furnish the reinforcements necessary to defeat the defensive forces of the body.

However desirable it may be to remove all foci of infection and absorption, observations and experience have demonstrated that it is not always possible or necessary

to do so. Elimination of the foes on any one of the many battle fronts may be sufficient to again let life's constructive forces dominate the situation and save the day for the individual. Often, very often, the front most accessible and most easily eliminated is the colon. With its toxic overload eliminated or minimized, the defensive forces may then be able to hold in check the enemies in more impregnable and inaccessible places, until they too can be overcome.

That the colon is often the source of the toxic overload is being more and more recognized by leaders in various departments of medicine. Dr. A. Bassler, of New York, says, "When all has been said about apical, tonsillar, sinus, prostate, female pelvic organs and other commonly recognized focal infections, the intestinal canal outranks them all in importance."

Dr. Albee, of New York, one of our best known orthopedists, says, in the *J.A.M.A.* of November 3, 1928, that during twenty-five years of practice he has been increasingly impressed with the large number of cases of low back pain, lumbago, sacro-iliac strain or relaxation, strain of lumbar muscles, muscular rheumatism, sciatica, certain cases of "tennis elbow," weak or flat feet, etc., in which the true condition was toxic absorption. In ninety percent of such cases, he says, the toxic absorption is from the colon. He further states that results from local treatment of the affected area have given him unsatisfactory results, whereas striking relief has usually been observed when the colonic function has been returned to normal.

Goldman, of the Hospital for Joint Diseases, in New York City, collected a series of several hundred cases of arthritis, in which the focus of infection was found in the rectum.

Mummery, of St. Mark's Hospital, London, says that intestinal toxemia is responsible for many cases of arthritis, as well as for failure of the liver and kidneys.

In the *J.A.M.A.* for March 8, 1930, Redewell, Potter and Garrison presented a paper, "The Colon as a Site of Focal Infection in Chronic Pyelitis, Cystitis and Prostatitis." They report twenty-two such cases that had been under prolonged and continuous local treatment, with very unsatisfactory results. Yet all of these cases cleared up in a very short time and

remained well when proper attention was paid to the colon.

Did time and space permit, one could cite equally eminent authorities in other lines, to the effect that many other diseases and symptoms may be caused or aggravated by a toxic colon. Suffice it to say that cardiac disorders, high and low blood pressures, hyperchlorhydria and biliary diseases, bronchitis and asthma, various skin lesions, many mental and nervous diseases and even insanity have been shown to be caused or aggravated by toxic absorption from the intestinal tract.

Dr. Henry A. Cotton, of the State Hospital for the Insane at Trenton, New Jersey, reports that, by removing all foci of infection and then devoting special attention to the colon, he has been able to double the number of cases discharged from that institution.

If a toxic colon is productive of such deleterious results, it naturally follows that the colon should always receive prompt and intelligent attention. A thorough evacuation and cleansing of the colon is practically always in order and will be found to mitigate the general symptoms in most disease conditions. Nor is a physic the most desirable method of obtaining the results in the average case. All physics are habit-forming and, in the end, debilitating to the bowel. For quick and thorough toilet of the colon an enema, repeated if indicated, is usually preferable.

VALUE OF ENEMAS

However convenient, efficient and desirable the more complicated methods of colon irrigations may be, especially in chronic cases, they are not indispensable, nor are complex and expensive irrigants necessary. Water is the great cleanser. If made isotonic by the addition of certain salts, it is usually less irritating and more readily retained. Irritating solutions like soap suds, molasses, turpentine, emulsions, etc., are not to be commended as a routine.

Permanent results are not to be expected from colon irrigations alone. The normal colon is a self-evacuating and self-cleansing organ. The aim of the physician should be to restore it to its normal condition and function. Proper diet and habits, copious ingestion of water, reinforced if need be by mineral oil, are the chief factors in attaining this end.

Toxins are generated largely by the putrefaction of protein in the large bowel. Proteins putrify and form toxins and alkalies. These tend to inhibit peristalsis and defecation. Carbohydrates ferment and form acids which are relatively non-toxic and which stimulate bowel action. Hence, by reducing the proteins in the diet to the minimum of bodily requirements, we limit toxin formation and promote intestinal elimination. Two thorough evacuations daily are better than one. They materially reduce the possibility of toxic production and absorption.

Implantations of acid-forming bacteria in the large bowel are ineffective and unnecessary. Reduction of the proteins tends to starve the putrefactive bacteria, while an excess of carbohydrates furnishes a fertile soil for the growth of the *Bacillus acidophilus* and other acid-forming microorganisms. The successful treatment of colitis consists in making conditions in the bowel favorable for the development of the friendly bacteria and unfavorable for the propagation of those that are unfriendly.

Intestinal antiseptics, as such, have not been highly successful. Nor is it to be expected that they would. Even if intestinal

sterilization were possible, it would defeat its own end, for it would destroy the good bacteria with the bad.

Whether so-called roughage is a desirable element in the diet in colitis is still a disputed question. My own experience is that, in reasonable amounts, it is of value in chronic colitis. The irritation here is chemical, not mechanical. In acute colitis roughage is better omitted.

Such internal medications as are of value in improving the general condition are, of course, indicated; likewise those drugs having a specific affinity for mucous membrane are of value at times. In this class are ammonium chloride, terpin hydrate and mercury and arsenic, in small doses.

There is no routine treatment that is applicable to all cases of toxic colon. Each patient must be individualized. If possible, all foci of infection should be removed. The colon should be kept as clean as possible. The diet and habits of the patient should be regulated and the general condition improved. Such a regime will usually do much toward removing the toxic overload and may be the difference between success and failure for the doctor and between life and death for the patient.

701-3 Jefferson Bldg.

Fracture of the Skull

(Extensive Laceration, Destruction and Loss of Cerebral Tissue, with Complete Recovery. A Case Report)

By A. B. Illievitz, M.Sc., M.D., C.M., Montreal, Can.

THE literature is abundant in cases of severe injuries to the skull and brain, with little or no ill effect as a final result. The case I am now presenting has some outstanding features, both in regard to the original symptoms and the final result.

Robert T., age 5 years, was struck by an automobile on February 3, 1930, and taken to his home in an unconscious state. When I saw him, about 15 minutes later, there was definite paralysis of the entire left side of the face, the tongue was deviated to the right and there was definite paresis of the right upper and lower limbs. The boy was taken to the hospital and the skull roentgenographed. Although the

plates were not clear, the diagnosis of a depressed fracture of the skull was definite.

The same evening the boy was operated upon and a deeply-depressed fracture found. The fragment of bone (Fig. 1) was 3.25x3.25 cm. in size and embedded into the brain 5 cm. deep, at right angles to the vault along the right Rolandic or motor area.

As soon as the semicircular incision was made and the flap separated in the medial line, pieces of brain oozed out and there was considerable bleeding. There was evidence of extensive destruction and laceration of brain tissue. The fragment of bone was removed in a perpendicular way, without any additional injury. As soon as

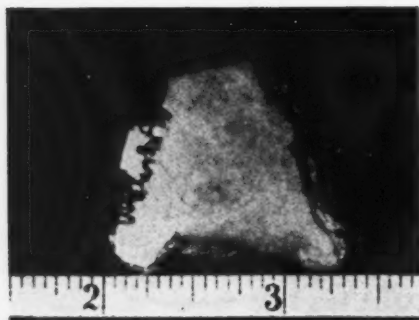


Fig. 1.—Photograph of piece of skull, which was embedded 5 cm. deep in the brain.

the fragment was removed, about two tablespoonfuls of brain tissue was forced out by the intracranial pressure. The bleeding was arrested and the dura mater sutured, the skin replaced, with a drain in the wound, and a capeline bandage applied. The fragment of bone was not replaced.

Soon after the operation, the paralysis of the face completely disappeared. The paresis of the limbs disappeared on the second day. On the third day, the paralysis of the face temporarily reappeared. The drain was removed and the paralysis disappeared. For three days the boy was able to say only the word "no." Gradually the speech returned. The pulsation of the brain was marked for six days and there was a definite bulging in the area where the bone was removed. On February 10, 1930, the

patient was discharged from the hospital, with an improvised metal protection for the skull.

Since then, the boy has been examined by several neurologists, who pronounced him a normal child. He has been able to learn new things quickly. Roentgenograms taken on May 16, 1930 (see Fig. 2) show the formation of new bone. Subsequent films showed continuous progress. He has

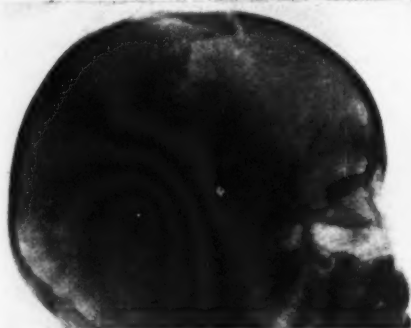


Fig. 2.—Roentgenogram of skull, May 16, 1930 (Compare the shape of the hiatus with the photograph of the fragment).

required no protection for his skull since July, 1931.

Apart from the extensive loss and destruction of brain tissue in the crowded rolandic area, with apparently no ill effect, the crossed paralysis of the face and limbs suggests what the French call a *contre coup* effect.

1497 Bishop Street.

PSYCHIC PRECIPITATING FACTORS IN DISEASE

There is much food for thought in the concept that a social, domestic or occupational situation may precipitate an illness, even though the illness be of functional character. The fact that the concept is not a new one does not lessen its importance. There is still a tendency for the laity to think of illnesses and causes of illness only in such terms as inflammation, tumor or hemorrhage. Something of the old belief, that mental activities are spirit-like and apart from physical laws, exists. It has been shown that a nerve impulse is a chemical and electrical phenomenon and the fact known of the relation of emotional states to bodily changes helps one to think of such experiences as deaths of relatives or an attempt to adapt to a new and unfamiliar environment, as producing profound physiologic changes in the patient, even though many steps in the physical changes which occur in these reactions are not known.—

DR. S. N. CLARK, Jacksonville, Ill., in Illinois M. J., March, 1932.

PHYSICAL · THERAPY AND RADIOLOGY

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DIETETICS

OUR forefathers ate whatever they wanted, whenever they could get it, and as much as they could hold; and because most of them were doing hard, physical work every day, relatively few of them died of it in their adult years, but many babies and children died because they were unintelligently fed. That, however, was no serious reflection upon the feeders, for the reason that little or nothing was known about food values or balanced rations—and nothing about vitamins and mineral metabolism—in those days. The science of dietetics was still in the womb of the future.

It may seem, to some, that an editorial on dietetics is out of place in the department of Physical Therapy and Radiology, but it certainly is not drug therapy, and only secondarily can it be considered psychotherapy. We must remember that the words physical therapy are not synonymous with mechanotherapy, electrotherapy or any of the other designations of subspecialties within the greater one.

We feel that almost every practitioner of medicine can profitably add the equipment for utilizing one or more of the potent physical agencies we are now using

to his armamentarium. And we also feel that every doctor should familiarize himself with at least the outlines of the newer knowledge of nutrition, sufficiently to be able to *prescribe* a diet as accurately and intelligently as he now prescribes a pill or a potion.

We do not yet know all about the vitamins nor the essential tissue minerals, but we have found out a good deal in the past decade, and the men who yearn for professional success and a lucrative practice should put themselves in possession of this knowledge and begin to use it without delay.

People are beginning to realize that excess fat is, not merely a cosmetic blemish, but a source of real danger, especially in one's later years. Kern has said, "The heavier a man is, the older he is," and this applies with equal, if not greater, force to women who, because they are the racial conservers of vitality and energy, are naturally nutritional. Fat people are decidedly more subject to diabetes, high blood pressure and a number of the other diseases of middle life than are the more meager ones.

Those who realize the importance of living rationally will turn first to their family physicians for help in doing so.

If these advisers fail them—as too many now do, because they are ignorant of the basic principles of dietetics and other factors in intelligent living—we have no right to complain if they go to the irregulars and the nostrum vendors in search of the assistance which we have been too lazy or indifferent to prepare ourselves to render them.

The practice of dietetics requires no expensive apparatus and no more study than

that required in learning to use diathermy and ultraviolet rays with judgment. One or two modern books on the subject, and articles which are appearing frequently in the medical journals will, if well and sincerely studied, give any man a working basis for a start in this direction. And the effort so expended will give abundant and increasing returns in professional satisfaction and in added income.

G. B. L.

Graduated Muscular Contractions

A New Method for Treating Injuries to Muscles and Joints

By Herbert G. Frankel, D.D.S., Covington, Ky.

Director Physical Therapy Dept. Kelley-Koett Mfg. Co.

INJURIES to muscles, bones and joints are so common that little thought is given to any special procedure that might aid in their recovery. Unless the case is of unusual interest, the time-honored methods of rest, application of heat and massage are the routine in the hands of the average physician.

Recently, however, a few men have felt that these methods do not constitute the proper procedure in the treatment of injuries. These men believe that rest is not the best treatment, and they advocate motion and exercise as the proper procedure in restoring normal function to the injured part. One of the best-known advocates of this latter method is Dr. Morton Smart, an English physician, who has invented a new machine for the controlling of exercise by reproducing, through graduated muscular contractions, the physiologic action of muscles and joints. This method has been so popular and is being used by so many physicians that it seems advisable to describe it in some detail and discuss the treatment briefly.

The Morton Smart Unit exercises the muscles and massages them at the same time. Its value lies in the fact that it hastens recovery in injuries and is of inestimable value in the treatment of fractures and also in restoring lost muscle tone.

The apparatus consists of a control unit and an interrupter unit. The current produced is a true faradic current but, unlike

the usual faradic current, it is absolutely painless in its application. The graduated muscular contractions are produced by means of an electric current; however, no virtue or curative power is claimed for the use of electricity, as it is only the stimulus which produces the contraction. It is solely the result of this contraction and relaxation, with its attendant chemical and physical changes, that produces the desired results.

The operator is enabled to produce alternate, painless contraction and relaxation of the injured muscle or muscles, and the type of contraction produced so closely resembles the physiologic contraction of a muscle, that the result is indistinguishable from the normal, voluntary contraction. These contractions are different from those produced by other types of machines, as the Morton Smart apparatus is the only one which causes a gradual contraction, from zero to the maximum contraction of which the muscle is capable.

The whole essence of any method producing a physiologic and painless type of muscular contraction, which can be applied to any group of muscles so as to cause from two to three thousand consecutive contractions of the muscles without harm or undue fatigue, must be founded on the principle of personal control of the degree and speed of contractions of the individual muscles.

This type of treatment is indicated and

is particularly useful in strains, sprains, bruises, fractures, lumbago, wasted muscles, injuries to joints, relaxed muscles, infantile paralysis, adhesions and wherever one wishes to restore muscle tone.

Dr. Morton Smart advocates its immediate use in sprains, strains and fractures. By artificially contracting and relaxing the injured muscles, a large amount of blood is passed through them so that, when treated with graduated muscular contractions, results are rapid and complete.

When a joint is injured, pain produces limitation of movement due, in the main, to the contracting muscles still further increasing the tension. Blood vessels dilate; the flow of the blood stream is accelerated; permeability of the capillaries increases; fluid exudes from the blood into the surrounding tissue spaces; the synovial folds become swollen, stretched and distorted and the joint cavity is filled with excess of fluid mixed with blood.

The chief symptoms are pain, rise of temperature of the part, limitation of movement and alteration of shape from swelling. The *wrong* method of treatment in this condition is *rest*. No matter how painful a joint may be, as a result of the changes described, all of the muscles can be made to contract without pain by means of graduated muscular contractions. By making the muscles of the injured joint so perform their function, rapid repair of all of the injured structures takes place. By commencing the treatment of a sprain early by this method, all of the complications can be prevented.

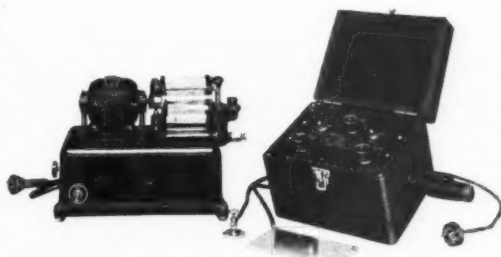
The basis of this method is to restore the tone of the injured muscles and to prevent inter-muscular and intra-muscular adhe-

sions, to keep tendons moving so that they will not become adherent to contiguous structures and, above all, to increase the blood supply to the injured tissues. Every muscle in the body is normally in a condition of slight continued contraction, known as muscle tone. Loss of tone due to injury is what we are endeavoring to prevent by this method.

The golden moment in the treatment of all joint injuries is the time which immediately follows the injury; but even when muscles are atonic and wasted from any cause, so long as the nerve is intact, the artificial production of graduated muscular contractions and relaxations, by the methods under description, reproduces the normal physical and chemical phenomena, with the result that the muscles are rapidly restored to their normal physiologic fitness.

Massage has been the ideal method of treating injured joints, but the treatment by graduated muscular contractions is far superior to massage. The treatment is carried on without the aid of the patient, who remains perfectly passive and absolutely relaxed. The relief, however, is so marked that the patient soon becomes conscious of returning voluntary power and this feeling of power encourages him to make efforts to move the joint, such efforts being further of benefit in promoting the changes necessary for repair.

One of the leading surgeons using this method states: "Graduated muscular contraction is the greatest advance in physical therapy since the introduction of massage as a therapeutic measure, and can be used to the exclusion of massage in the treatment of the various injuries incident to trauma."



The Dr. Morton Smart Unit.

THE TRUE PHYSICIAN

Nothing is more estimable than a physician who, having studied nature from his youth, knows the properties of the human body, the diseases which assail it the remedies which will benefit it, exercises his art with caution and pays equal attention to the rich and the poor.—
VOLTAIRE

CLINICAL MISCELLANY

Incandescent Bulb Ultraviolet

THE future must decide one important question, and that is, whether a small amount of the proper ultraviolet radiation, as the vital portion, over a long period of time (such as an entire evening, when artificial visible illumination is needed), is equivalent to a very large amount of these same vital ultraviolet rays for a very short period of time. My own view is that the amount of the proper quality of vital ultraviolet rays must reach the skin over a value which I have proposed as "threshold value." That may be explained as a fixed unit of quantity of vital ultraviolet, per unit of time—second, for example—beyond that for which no action can be expected.

There is no doubt that the illuminating engineers will ultimately produce a source of vital ultraviolet with all the radiation needed for physiologic requirements of healthy men and women, and one which will be as simple to use as the present daylight bulb. It may well be that this source has already been made under laboratory conditions, but it is not yet suitable for general release. Something is certain to be developed which will be of sufficient value to overcome all the possible objections of the physician, the physiologist and the physicist.—DR. H. GOODMAN, of New York, in *M. J. and Record*, July 6, 1932.

Enuresis Nocturna

AN ANALYSIS of 40 cases shows that a wide range of pathologic changes are found in enuresis nocturna. Malformations of the posterior urethra, in the male and, particularly, diseased and abnormal verumontana, constitute the main causative factor.

Fulguration with the high-frequency current (d'Arsonval current of mild intensity), only occasionally more than one application being required, is the treatment of choice and has resulted brilliantly in a high percentage of cases.—DRS. B. A. THOMAS and R. J. HUBBELL, in *J. Urol.*, July, 1931.

Pyretotherapy by Dry Heat

THE artificial production of fever for therapeutic purposes, by the use of certain drugs, inoculation of malaria, diathermy and other methods, is receiving considerable attention at the present time.

Inoculation of a patient with malaria is decidedly dangerous. The production of fever with drugs, vaccines, etc., is often almost beyond control. The use of diathermy to produce fever requires a powerful current, a careful technic and close attention to the patient.

Why not use the old-style dry hot air apparatus, which is far safer, better, cheaper and quicker than any of the new methods?

J. A. BURNETT, M.D.,

Waldron, Ark.

[As Dr. Burnett reports no cases treated by this method, it is reasonable to assume that his suggestion is merely an undemonstrated hypothesis, which does not seem especially sound.

It appears decidedly open to question whether the dry hot air apparatus ("body baker") is "safer, better and quicker" than is diathermy, for this purpose; though we will admit that it is "cheaper." The safe use of such a machine requires a rather rigid technic and as close supervision of the patient as that essential in producing fever by diathermy.

If any of our readers have had actual experience with this method, we shall be glad to see their reports and comments.

—ED.]

Radiotherapy with Small Quantities of Radium

RADIOTHERAPEUTIC results depend upon the training and ingeniousness of the radiologist, and not entirely upon the quantity of radium available. It is neither practical nor necessary that large quantities of radium should be available; an adequately trained radiologist is more to be desired than radium.—DR. P. O. SNOKE, of Lancaster, Pa., in *Radiology*, Oct., 1931.

RECENT ABSTRACTS

Heat in Treatment of Prostatic Affections

In *J. Urol.*, June, 1932, Dr. M. L. Boyd, of Atlanta, Ga., describes a new, metal, two-way rectal tube for the employment of hot, saline rectal irrigations in the treatment of prostatic inflammatory affections. The author describes the apparatus as follows:

Two large electrodes (12 x 18 cm) are placed on the front and back of the liver region. The treatment lasts 2 hours, the current strength being 1 to 2.5 amperes. This is repeated every day or every second day. Improvement is registered by changes in the bile (obtained by a duodenal sound) and removal of bilirubin and urobilin from the urine.

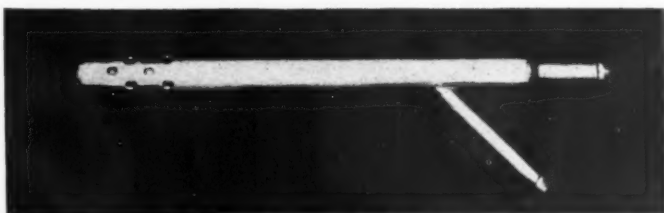


Fig. 1.—Dr. Boyd's Two-Way Rectal Tube.

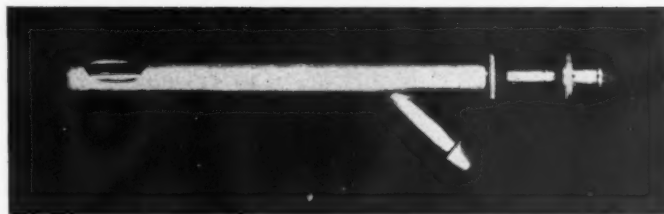


Fig. 2.—Martin Rectal Tube.

I have designed a two-way metal rectal tube (Fig. 1) which can be obtained from Charles R. Bard, Incorporated, and which seems to have no really objectionable features. I make no claims for originality in designing this tube. My object in this presentation is to call attention to a useful method of applying heat in the rectum for the treatment of prostatic and seminal vesicular diseases.

The inflow holes, as shown in the illustration, are on the outside and are small, irregularly spaced, and with rounded, smooth edges, so that no roughness is felt when the tube is introduced and withdrawn. There are no inflow holes immediately adjacent to the outflow opening. By placing the outflow opening in the center of the tube, it is possible to do away with the large openings such as exist in the Martin rectal tubes (Fig. 2), which I have been prescribing for many years. Many patients complain that these large outflow holes hurt the anus when the tube is withdrawn.

Hot, isotonic salt solution is used and the temperature is regulated by the patient's own use.

Diathermy in Liver Conditions

Dr. G. Goldgruber, of Budapest, in *Klin. Wchnschr.*, Feb. 18, 1932, reports good results in cholecystitis, cholelithiasis and other liver diseases following diathermy of the liver region.

Ultraviolet Radiation Therapy in Dermatology

The Council on Physical Therapy of the American Medical Association has authorized publication in *J.A.M.A.*, Apr. 30, 1932, of a report by Dr. G. M. MacKee, of New York, on the value of ultraviolet radiation therapy in dermatology.

From this report it appears that the subjoined list of dermatoses comprises diseases in which alleged good results have been obtained by at least several prominent dermatologists, or by physicians who are expert in the therapeutic use of light.

The letters in the list signify the routine technic in general use by American dermatologists.

A.—Frequent general irradiation of the entire body or of large areas of normal skin with doses too small to evoke erythema, for the purpose of influencing the disease through possible systemic action of the radiation.

B.—Frequent irradiation of generalized or fairly extensive eruptions with small or at least suberythema doses.

C.—Irradiation of fairly extensive eruptions with erythema doses. There may be but a single treatment, or treatments may be given once or twice a week or even daily, depending on the

results desired and obtained, toleration, and the like.

D.—Irradiation of circumscribed eruptions or lesions with erythema and blistering doses. Treatments are not repeated until all evidence of reaction has disappeared.

Alphabetical List of Diseases

Acne conglobata—acne cachecticorum; A, B
Acne varioliformis; C
Acne vulgaris; A, C
Adenoma sebaceum; D
Alopecia areata; C, D
Alopecia praematura; C
Angioma serpiginosum; C
Cicatrix—pitted scars; D
Dermatitis herpetiformis; A, B, C
Dermatophytid; B
Dermatophytosis; B
Eczema—various types; B
Erysipelas; B, C
Erythema induratum; A, B, C
Folliculitis—pustular; A
Furunculosis; A, D
Herpes zoster; B
Leukoderma; C
Livido reticularis; B
Lupus erythematosus; A, B, D
Lupus vulgaris; A, D
Neurodermatitis—circumscribed; C, D
Neurodermatitis—disseminate; A, B
Nevus flammeus (port-wine mark); D
Parapsoriasis; C
Pernio; B
Pityriasis rosea; C
Pruritus—secondary; A, B, C
Psoriasis; A, D
Scleroderma; A, B
Scrofuloderma; A
Sycosis vulgaris; A, B, C
Telangiectasia (x-ray and radium sequelae); D
Ulcers and wounds—indolent, B, C.

It appears to be the general impression in the medical profession and among lay persons that ultraviolet radiation is of great value in dermatology. There is evidence sufficient to justify the belief that ultraviolet radiation is a valuable remedy for erysipelas and for certain types of cutaneous and subcutaneous tuberculosis. It is reasonably well established that ultraviolet radiation is at times useful, either alone or as an adjuvant for the treatment of acne vulgaris, adenoma sebaceum, pityriasis rosea, parapsoriasis, psoriasis, telangiectasia, indolent ulcers and wounds and port-wine stains. So far as concerns the other diseases in the list given, there is some difference of opinion among dermatologists, but the majority, while admitting occasional good results that appear to be due to the radiation, do not consider it an important agent in the management of these disorders.

Acriflavine and Ultraviolet Ray Treatment of Psoriasis

In Illinois M. J., May, 1932, Dr. S. J. Zakon, of Chicago, reports on 111 cases of psoriasis vulgaris, treated by a combination of intravenous administration of aqueous acriflavine solution and general body radiation with the air-cooled quartz lamp. The cases were of all types—acute, subacute and chronic.

Thirty seven (37) patients were healed of all lesions by use of this therapy alone; 60 were markedly improved; 14 were not benefited.

The strength of acriflavine used at first was 1 percent, but later an 0.5 percent solution was found equally effective. Five (5) cc. are injected and fifteen minutes later the patient is placed under an air-cooled quartz lamp and his whole body exposed for 20 seconds at a distance of 40 cm. The body radiations are given in gradually increasing doses, always below the erythema dose. The injections are given three times a week, the dose being increased to 10 cc. The radiations are given daily. Lukewarm baths and boric acid ointment are given to remove scales.

It is not claimed that this method of therapy is specific; recurrences are not prevented, but they may be retarded in patients who pigment well.

Treatment of Mastoiditis with X-Rays

During the past 17 years, as he reports in *Radiology*, June, 1932, Dr. W. L. Ross, of Omaha, has treated 41 cases of mastoiditis with x-rays.

Some of the advantages which he found for this form of therapy are:

- 1.—Treatment at once stops further invasion and destruction of mastoid cells.
- 2.—Pain begins to lessen, following the first treatment.
- 3.—The discharge is thinned and increased; when all pain and tenderness are relieved, the drainage stops.
- 4.—No diseased areas of the mastoid cells are missed, as the treatment covers the entire mastoid.
- 5.—The treatment is painless.
- 6.—The course of the disease is shortened.
- 7.—The danger and pain attending surgical operation are avoided.

Some of the disadvantages are:

- 1.—Temporary loss of hair over the area exposed to x-rays. The hair, however, comes in thicker than before in about three months.
- 2.—Dermatitis of the area exposed to x-rays, which, however, can be prevented by proper filtration, the application of salted butter once a day over the exposed area, and the application of a very mild high-frequency current of electricity through a vacuum electrode.

NEWS NOTES

Radiologists to Meet

The Radiological Society of North America will hold its annual meeting at Atlantic City, N. J., November 28 to December 2, inclusive, 1932. Information may be procured from the secretary, Dr. Donald S. Childs, Med. Arts Bldg., Syracuse, N. Y.

THE • SEMINAR

[NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted. Discussions should reach this office not later than the 1st of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, North Chicago, Ill.]

PROBLEM NO. 9 (MEDICAL)
Submitted by Dr. F. H. Rhoades,
Hanover, Kans.

(See CLIN. MED. AND SURG., Sept., 1932,
p. 671)

Recapitulation: A robust girl of 18 years, who menstruated regularly for three years, has had no flow for the past two years. Examination shows no physical abnormality, except a slight enlargement of the thyroid and a moderately rapid pulse (90). She has been given a pluriglandular endocrine preparation, as well as Theelin and Antuitrin, without effect on the menses.

Requirement: Suggest the etiology and treatment of the amenorrhea.

DISCUSSION BY DR. F. F. SCHWARTZ,
FAIRPORT HARBOR, OHIO

The history of Dr. Rhoades' patient is inadequate for making a diagnosis. We need information on the family history, the condition of the nervous and circulatory systems and the mental status of this young woman. Has there been a physical injury or psychic trauma, such as an unhappy love affair, in her life?

A more thorough examination of her abdominal and pelvic organs is in order, and a complete blood study is essential, especially in a robust individual, to exclude the anemias and polycythemias.

It would be inadvisable to institute therapy until the exact diagnosis is established, whether the condition is primary or secondary.

DISCUSSION BY DR. E. C. JUNGER,
SOLDIER, IOWA

This young woman seems to have had her ovaries injured by some toxic substances, whose presence is indicated by the

thyroid symptoms. A destructive dose of radium or x-rays might have produced the same effect.

In order to eliminate toxins, rapidly, I recommend bloodletting, removing a pint of blood at a time from one of the elbow veins and repeating the operation every three or four days until the desired results are obtained.

DISCUSSION BY DR. HERMAN J. KOOIKER,
MILACA, MINNESOTA

Because this patient menstruated apparently normally for some years, the amenorrhea is, of course, acquired. It might be of considerable assistance if we knew something about the character of the menses prior to the apparently sudden cessation, in arriving at a conclusion as to which endocrine disorder is at the bottom of the symptoms in this case.

The menstrual cycle depends upon a concentrated and mutually dependent action of several organs, chiefly the ovaries, thyroid and pituitary body. The relationship between these glands is complex and the function of one may be assumed by another. It has been pointed out, for instance, that the thyroid may assume the function of the anterior pituitary, as well as its own. Thus it has been shown that, in nearly all adult cases of hyperanterior pituitarism, the sella turcica is comparatively large, while in the hyperthyroid cases the sella is very narrow and shut in. In other words, in case of an over-active thyroid, the anterior pituitary will have less demand made upon it and will not enlarge so quickly; therefore the pituitary fossa will be small; while in hypothyroid conditions, the pituitary fossa will be large, because of over-secretion of the anterior pituitary.

In cases of hypopituitarism, the periods, as a rule, are irregular or at a longer in-

terval than twenty-eight days, and in such cases the posterior pituitary is generally hyperactive, which is manifested by dysmenorrhea. The anterior pituitary and the thyroid initiate and maintain ovarian function, so, if the ovarian function, in itself, were listless, the anterior pituitary would respond by increasing its activity, manifested by pressure headaches, delayed and irregular menses. It can thus be reasonably said that the thyroid has not had to take on a vicarious function because of an indolent pituitary; and neither has the anterior pituitary needed to encourage failing ovarian function.

There is left for consideration the thyro-ovarian relation. This a very close one, as has been shown by many investigators. The thyroid and the ovaries react upon each other and it is sometimes difficult to know whether a given condition is causative or resultant. It has also been held that the thyroid and ovaries may be either antagonistic or synergistic in their action, and it seems that, in the same individual, there may be a hypothyroid condition and again, just before menstruation, a hyperthyroid condition, as witnessed by the monthly enlargement of that gland.

The reason for the predominance of thyroid disease in women is because of the ovaries. The thyroid and the ovaries are at opposite ends of a balance. Each stimulates the other, and if one becomes too strong, the other is inhibited, and vice-versa. If this balance is upset, it sometimes is restored only with difficulty.

Because of the enlargement of the thyroid and the somewhat rapid pulse in this case, it looks as if a hyperaction of the thyroid is the cause of the ovarian depression. It is also known that enlargement of the thyroid may be on a hypothyroid basis, even with a slight increase in the pulse rate.

It is likewise fairly well established that a hypothyroid condition is sometimes a cause of amenorrhea, especially in young girls at puberty or in the few years following.

A good clue as to whether the thyroid enlargement in this case is due to a well established hyperthyroidism or to a well-meant attempt on its part to encourage a fundamental deficiency of its own or an ovarian activity, could be had in carrying out the thyroid function test of Harrower. (See "Practical Organotherapy," third edition, page 105).

I am inclined to consider this case one of so-called simple goiter, with the enlargement of the thyroid on a hypothyroid basis, because this condition occurs so frequently in young girls. Treatment would be then required: (1) to lessen the physiologic call upon the thyroid or to regulate ovarian insufficiency; (2) to supplement the work of the thyroid by administering thyroid extract, in order to make it unnecessary for the thyroid to enlarge itself so much. To this end, the administration of iodine should be continued, preferably in the form of Iodized Thyroid Compound (Harrower), because it also supplies a mineral element and favors the work of the detoxicating mechanism, especially of the ductless glands; also applying an iodized ointment, externally, to the skin over the thyroid, in doses of the size of a large bean.

If this treatment does not reduce the size of the thyroid to normal in a month or two, or if it is seen that it has come to an irreducible minimum, and still there is no menstrual flow, it will be best to fortify it with additional thyroid, ovarian and pituitary extracts. Better still, probably, if the thyroid function test has made the patient feel better, it will be well to push the thyroid, ovarian and pituitary extracts from the beginning.

DISCUSSION BY DR. E. O. HOUDA,
TACOMA, WASH.

By referring to my articles, "The Etiology of Endemic Goiter" and "The Specific Treatment of Goiter," which appeared in the March (p. 176) September (p. 651) 1932 issues of CLIN. MED. AND SURG., respectively, this discussion can be very brief and to the main point.

This patient is, of course, a thyroid case. I have proffered my goiter vaccine to Dr. Rhoades, which, if he will accept and use it, thereby immunizing his patient against the primary microbic cause of goiter, will correct the amenorrhea, which is one of the protean manifestations of this disease, in the course of two or three months—possibly with the first month. This, of course, is contingent upon the presumption that this goiter is of the endemic type in a non-goitrous region, as Kansas is reputed to be by some—a presumption to be proved correct or incorrect after otherwise harmless vaccine therapy. Not only will the menses be reestablished, but this early type of goiter will disappear. Such statements

may appear almost incredible, but no more so than the even more incredible events reported in my article, during and after this specific treatment.

This, while a large prognostic order, is expected to be filled. I hope, as no doubt many others may, that the doctor will give these suggestions a fair trial, so that he may possibly be able to report with the publication of the discussions.

CLOSING COMMENTS BY DR. RHOADES
(Dated Oct. 10, 1932)

Typical toxic goiter symptoms developed in the latter part of July, 1932. The patient lost 15 pounds in weight; tremor was present; the pulse rate ran from 120 to 140 per minute. I began giving Lugol's solution (15 drops daily) and digitalis to full effect. Under this treatment she has improved—the tremor has almost disappeared; the pulse rate is about 80 to 90 per minute; the lost weight has been regained; and the patient feels well and (contrary to my instructions) has again been doing heavy farm work.

I received the goiter vaccine, so kindly sent me by Dr. Houda, but due to personal illness I have given only four doses of it so far, according to the directions given in Dr. Houda's article in CLIN. MED. AND SURG. for September, 1932 (p. 651). The third injection caused a mild local reaction, but I increased the fourth dose (which I have just given) as usual. I shall be glad to report further on this treatment after it has been given a real trial.

PROBLEM NO. 11 (MEDICAL)
SUBMITTED BY DR. HUGH D. STITES,
ALEDO, ILL.

I was called to see a young girl, age 9 years, who complained of severe headache, vomiting and generalized pain over the ab-

domen, which was so severe that she was unable to sleep at night and continued for 3 days, after which her fever subsided, her headache was relieved and she felt well.

Family History: A maternal uncle had migraine; her father has urticaria, cause undetermined; there is no history of malignant disease, tuberculosis or nephritis.

Personal History: Birth weight, 11¾ pounds; breast-fed; normal development; has had chickenpox, but not other illness.

History of Present Illness: When this patient was 3 years of age she had an attack of headache, vomiting and fever, 102° to 103°F. The fever lasted for 3 days and her temperature then returned to normal and she was apparently well until about 3 months later, when she had a recurrence of the symptoms. She has had similar attacks at intervals of 3 to 4 months, coming on suddenly, lasting the same length of time and, between attacks she is apparently in perfect health. In two attacks she had a generalized rash and a diagnosis of measles was made the first time, but, as she had a similar rash with the next attack, this was evidently an error.

Physical Examination: Rather undernourished girl, apparently acutely ill; weight, 54 lbs.; pulse, 110; temperature, 101.5°F.; pupils, normal; eye-grounds showed some constriction of the retinal vessels; right tonsil enlarged and infected; glands, negative; chest, negative; marked tenderness and rigidity over the entire abdomen, more marked in the left lower quadrant; rectal examination, negative; Kahn test, negative, as was also the urine and blood examination. This patient was found sensitive to almonds, peas, eggs and cheese.

Requirement: Suggest diagnosis and treatment.

COOPERATION IN AUTOPSY WORK

One of the reasons why the percentage of autopsies still continues low is that undertakers offer opposition, on the ground that it disturbs their work.

A joint committee of the New York Academy of Medicine, the New York Pathological Society and the Metropolitan Funeral Directors' Association has held a number of meetings and a substantial agreement has been arrived at, by which all agree that an autopsy by a pathologist is desirable in order to advance knowledge of the disease and to provide reliable records. The pathologist will now only have to convince the family.—Editorial in J.A.M.A., Dec. 19, 1931.

A LIVING FOR THE DOCTOR

PARENTERAL MEDICATION

BEFORE the invention of the hypodermic syringe there were only three ways to get medicines into the human system: through the mouth, the rectum and the skin. The first of these routes, being the simplest and easiest, was used almost, but not quite, to the exclusion of the others (mercury, iodine, methyl salicylate and a few other drugs are still given by inunction, sometimes), and, even today, is by far the most popular way of administering drugs, though the injection method is steadily becoming more generally used.

The physician who desires to succeed, both financially and professionally, will do well (if he has not already done so) to familiarize himself *thoroughly* with the technic of parenteral (hypodermic, intradermal, intramuscular, intravenous, intraspinal, intraperitoneal, and even intraventricular) medication, as well as with the newer drugs which are administered solely or preferably by these methods.

Since professional success is (thank God) the highest goal of the efforts of most physicians, it will be well, first, to suggest reasons why parenteral medication will assist them on the road to that goal.

When medicines are given by the mouth, rectum or skin, no one has more than a rather hazy idea as to how much of the dose administered will actually be effectively absorbed by the tissues and fluids of the body, because, as yet, we have no method for accurately determining the permeability of the tissues through which the drug must pass and the other physical and

chemical factors involved in the process of absorption. We therefore tend to give "dose enough," so that an adequate quantity will be absorbed, with no very clear notion about the changes which will be produced in the body by any possible excess.

Injectable drugs, on the other hand, are generally standardized upon animals, so that we know, with a reasonable (if not absolute) degree of exactness, just what effect a certain number of milligrams of the drug will produce upon a certain number of kilograms of living body, when given hypodermically, intramuscularly or intravenously, and can, therefore, calculate the proper dose mathematically, based upon the weight of the patient.

Many of the newer and more potent medicaments, such, for example, as the arsphenamines, acetylcholine, epinephrin and the serums, vaccines and non-specific protein preparations, are of value only when administered parenterally, so that the physician who is unfamiliar with the technic of these methods is denied the use of many of the remedies which offer his patients the most certain promise of a speedy and complete recovery from their maladies.

It is the present consensus that syphilis—the most ubiquitous and protean of diseases—can be treated adequately only by the parenteral injection of such arsenicals as neoarsphenamine (given intravenously) or Bismarsen (for intramuscular use) and the injectable preparations of bismuth and mercury. The physician who cannot treat

syphilis properly is cut off from one of the most profitable and professionally satisfying sections of medical practice.

Best results, especially in chronic diseases, are obtained when the physician has complete control of the treatment of his patient, and this is impossible when drugs are prescribed for oral administration, or even when they are dispensed. One can never be sure how regularly or how accurately a patient will take pills or potions, nor where and how often they will have prescriptions refilled.

Here, too, enters an economic factor. It is much easier to keep a patient coming regularly to the office and to collect substantial cash fees from him if *something* (such as an injection) is *actually done for him*, than it is when he is given only advice and a prescription. Parenteral medication, therefore, best serves the interests of both the patient and the physician.

All doctors of medicine are supposed to know how to give a hypodermic injection, but some of them bungle even this. When it comes to intradermal (as of the bacteriophages and antiviruses), intramuscular and, especially, intravenous injections, only a minority of otherwise-well-qualified physicians have the technic to administer them skillfully. Those who are not so qualified therefore hesitate, delay or fail altogether to use them.

The first thing for the doctor to do, who is not skilled in parenteral technics, is to study some of the books or magazine articles which describe these methods in full detail; then to study the anatomy and physiology of the parts involved—the gluteal, deltoid and thigh regions, for intramuscular or epifascial injections, and the superficial cubital and other readily accessible veins—and the different types of syringes, needles and infusion apparatus best adapted for giving the various kinds of injections; and, finally, to *practice* them assiduously, upon animals or clinic and charity patients, at first under the direc-

tion of someone already familiar with them, until he can, *with certainty and regularity*, give intravenous injections without hesitating, fumbling or puncturing a vein (except in the one desired spot), and intramuscular injections without causing the patient one pang of *unnecessary* pain (some substances, at present, *always* cause a certain amount of pain, even when injected into the proper tissues, in the proper way).

Intraspinal and intraventricular injections are another story and require special training and a high degree of skill for their safe and successful use. It will be better, at least at first, for most physicians to refer work of this sort, when it is necessary, to someone who is expert in the technic. All doctors should, however, *know* about these methods and what they can be expected to accomplish.

The next step is to gain *thorough familiarity* with half a dozen or so drugs which are to be used in this manner. It is assumed that every physician knows his morphine, atropine, strychnine, epinephrin, vaccines and several other alkaloids and biologic substances and can give them, hypodermically, with ease and self-reliance.

The first list of drugs so studied should contain one of the arsenicals for intravenous use (nearsphenamine); one for intramuscular administration (Bismarsen); one each of the injectable preparations of bismuth and mercury; a powerful cardiac stimulant (epinephrin or Coramine); a respiratory stimulant (alpha lobeline); a general leukocyte stimulator, for intravenous use in infections (Metaphen, 1:1,000) and a non-specific protein, such as Lactigen, for intramuscular administration. Others should be added to the list, from time to time.

Each one of these drugs should be thoroughly studied, to determine its powers, properties, limitations, dangers (if any), dosage, and the best way to prepare and

use it. Where possible (and it now generally is possible, except with such drugs as the arsphenamines, acetylcholine and some others, which should always be used in *fresh* solutions), it is better to purchase the solutions marketed in sterile ampules, all ready to be drawn up into the syringe and injected. No drug should ever be injected until its effects and indications are *well known* to the man who gives it.

When the doctor has thoroughly prepared himself to employ parenteral medication intelligently (and that may require several months), he should proceed to "sell" the idea to his patients (if that is necessary, which it frequently is), by explaining to them that medicines given by injection are not always "dope" nor "serum," as many people seem to think.

The advantages of this method, for the

patient, should be made clear, stressing the fact that, while *each treatment* (if the doctor still charges for his services on that basis) will be more expensive than if injections were not used, the *total cost* will be less, because recovery will be more rapid; to say nothing of the many advantages accruing to the patient from a shortened period of illness. It should, however, be remembered that no man who is not, himself, "sold" on an idea can "sell" it to someone else.

If these suggestions are carried out faithfully, without any effort to cut corners or "go off half cocked," the use of parenteral medication, in *any* physician's practice, will lay the foundations for an enviable professional reputation, as well as for economic stability and independence.

G. B. L.

A Plea for a Physicians' National Home

By J. B. H. Waring M.D., Cincinnati, Ohio

BROTHERS in the active practice of medicine today, where will you individually be, mentally, physically and financially, in the autumn days of your professional life? You do not know; I do not know; no one knows! It is largely a gamble with every one of us.

It is all well enough to write, "When winter comes, then spring cannot be far away," but what good will the spring do such professional brethren as cannot weather the cold, hard, biting winter, inevitable at end of our professional days, unless, in better days and times, we have been able to store up, each for himself, a surplus of this world's goods for that rainy day?

We may look at this thing in a hard-boiled, "survival of the fittest" way, and pass by with a shrug of the shoulders for the aging and aged members of our profession, who find themselves down and nearly out in a financial way. The canny squirrel lays by, each autumn, a goodly supply of nuts, acorns and other squirrel edibles, to tide him over the dark days of winter. Instinct tells this little animal to

do thus—tells him that winter will follow autumn and that, then, unhoarded squirrel food will be hard to find. Even with all this foresight and preparation, there is no guarantee that thieves may not break through and steal his food supply for winter days. If the squirrel's winter food supply is thus pilfered, it may mean much distress and suffering, even death, to the luckless little animal.

We medical men are in no better case. Sickness, accidents, economic mishaps may strike without a minute's warning and leave us bereft in a financial sense. It is traditional that the average physician is a poor business man — gives freely throughout his professional career to the deserving poor, and even more freely, perhaps, to the thousands who could and who would pay him for his services, did he display enough backbone to seek payment for services rendered.

During the most active portion of our careers, fees may flow in fairly freely, but money flows out just as freely on overhead; on family; on "good thing" investments, and before the average physician

realizes the state of affairs, his best days of practice are over; his clientele begins, slowly but surely, to seek younger, more active and more progressive physicians. When the high-pressure stock salesman begins a campaign, he inevitably turns to physicians, secure in the knowledge that most of them are easy to "sell" on almost any proposition, provided it is properly gilded and suavely introduced. All of these pitfalls catch us, and many of us go down as the autumn of life slowly comes on.

In the days when we were good fellows and good spenders we had plenty of good friends; all we had to do, in those days, was casually to ask for the loan of a few hundreds; but let a physician get on the financial rocks and he knows not where to turn for temporary financial succor; the banks look on him as a wobbly risk to carry; his fellow professional confreres just have no ready money to loan about this time; and so it goes.

The down-and-out physician is too proud to make known his real financial plight, and he does not want ordinary charity for himself and family; yet they have to live, just as ordinary human beings do. No physician wants the bread line nor the ministrations of the Salvation Army for himself and his loved ones; but when the aged physician finds himself down and out financially, where can he turn for effective, dignified assistance and relief? No where!

We like to speak of the profession of medicine as a grand, noble fraternity—brothers all—devoting our lives and our best endeavors to relief of the sickness and suffering of our fellow men; but with all our high ideals and fine motives, we function differently from other great fraternal organizations. Almost without exception, all of the great professional and fraternal orders have made provisions for aged and infirm members. But not we of the medical profession. We have been too busy organizing our resources for the benefit of a more or less unappreciative public to take care of our own casualties—our sick and wounded from the battlefields of professional endeavor.

It should not be this way, and it will not be this way if the medical profession faces the issue frankly, courageously and honestly. What the profession needs urgently, badly and now, today, is effective organization to take care of our casualties. To be effective, relief measures should be,

and must be, national in scope; and I know of no agency more qualified to organize and develop medical relief than the great American Medical Association.

I do not know—I do not even attempt to suggest—a best way to handle this urgent situation; but handled it should be and it must be, if we are fair and honest with our profession.

In the State of New York, Dr. Robert T. Morris has worked long and hard, with a few understanding professional confreres, towards the development of a National Physicians' Home, where disabled and financially dependent physicians and their families may spend the sunset of their lives. Great good has been accomplished by Dr. Morris and his co-workers, but the Doctor is no longer a young man and is physically unable to labor in the cause much longer. He has sought long and hard to secure national scope and cooperation in the development of this National Physicians' Home, but the apathy of physicians high in the profession has been most discouraging.

Just as the multi-millionaire cannot understand the financial problems of those in the breadlines of great cities, so many physicians, who have reached exalted station and wealth, cannot understand the problems and the worries of the aged and indigent physician. Not understanding the situation, they make a superficial survey through various State Medical Secretaries, who report that they have no knowledge of medical distress in their states. There being no financial distress cases officially reported from any of the states, *there are none (!)*, therefore there is no need for any physicians' relief activities.

This is anything but the truth. There are hundreds and hundreds of physicians all over this broad land who are in want; many are aged; many are physically incapacitated and dependent upon the charity of local relief agencies; all are too proud to make their plight known to their more successful professional brothers. No physician who has made a failure of his professional life and career wants to impose himself upon his more successful confreres.

How much better it would be if we had, in the medical profession, a Physicians' Relief Association, where every deserving and qualified physician could be sure of such financial and professional assistance and rehabilitation as his case

indicated—not medical charity, but an organized, dignified, professional relief agency, where any physician in good standing could take his instant problems and be assured of an adequate and sympathetic audience and assistance.

SUGGESTED PLAN

I have no pet scheme or plan for handling this problem. As a basis, I think the American Medical Association would do well to take over the nucleus established by Dr. Morris and his associates and build upon that. If every fellow of the American Medical Association contributed, say, \$5.00 a year to a Medical Relief and Pension Fund, the finances would soon be forthcoming upon which to build; and if every doctor realized that this \$5.00 a year was a guarantee that every qualified physician would have a haven of rest at the end of the road, in case financial disabilities threatened to put him down and out in his later years, there would be little difficulty in securing an adequate financial foundation. Perhaps it would be quickly demonstrated that a less sum each year would take care of the situation; in which event dues to the Pension and Relief Fund could be decreased.

In the clerical profession, in practically all of the larger churches, ministers who become disabled or who have functioned for a certain number of years in the Church, are eligible to a dignified and well-deserved retirement upon pension. Why could not some such plan be available to the medical profession, whereby every doctor of medicine, upon legal qualification to practice and attainment of Fellowship in the American Medical Association, and the payment each year of whatever amount the Pension and Relief Fund called for, could look forward towards eligibility to retirement on pension after so many years of active, honorable practice; or, in case of physical incapacity or financial disaster, would become eligible for the Phy-

sicians' National Home, for himself and his minor dependents. One of the strongest attractions held out by the Army, the Navy and the Public Health Service is retirement, upon part pay, in case of physical disability incurred in Service or upon reaching 64 years of age.

Aside from current annual dues from the individual physician, such a Pension and Relief Fund would undoubtedly receive, from time to time, large donations from physicians who had prospered well in practice or who, in their wills, would gladly leave substantial bequests for surviving confreres in the profession.

It might be argued that such a Pension and Relief Fund would be imposed upon; that many physicians would apply for the benefits of the Fund or Home membership, while still able to maintain themselves in practice or without actual financial incapacity.

Abuses are possible in any system, of course, but, taken as a whole, the medical profession is a very high-class, honorable one, and the greatest difficulty would not be in abuse of the benefits of the Relief Fund, but in persuading deserving physicians to apply for its benefits.

The very fact that irregularities in practice, violations of the laws and unethical acts would operate to deprive a guilty physician of the benefits of the Fund in his old age, would be a strong deterrent to untoward practices.

In any event, these informal suggestions are offered merely as a working basis to bring out the views of others in the profession, to the end that the project may be developed and organized into a practical and self-sustaining haven of rest and refuge for the aging and aged and financially disabled members of the profession, worn out with the arduous years of practice and fast approaching "that bourne from whence no traveller ever returns."

6075 Montgomery Road.

HUMOR

True humor springs not more from the head than from the heart; it is not contempt; its essence is love; it issues not in laughter, but in still smiles which lie far deeper. It is a sort of inverse sublimity, exalting, as it were, into our affections what is below us, while sublimity draws down into our affections what is above us.—CARLYLE.

NOTES AND ABSTRACTS

SATISFACTION IN MEDICAL PRACTICE

MANY a doctor chases the Will-o-the-wisp, contentment, only to fall headlong over stumbling blocks of his own creation, and is frightened into inaction by ghosts of his own conjuring.

But there is a way to carry on our work more to our liking—one tried and proved over a period of twenty-five years. The first step is to improve one's service by setting aside periods, twice a week, for study and pleasant relaxation, by limiting office hours to four a day and by studying and applying system so as to have all subject matter and case records in one's library at one's fingertips. Make the office as beautiful and homelike as possible and secure a neat, pleasant, courteous assistant, to receive patients, keep files and appointment records and prepare women patients for examinations. This will mean: no financial worries, no rushing, few nights when sleep will be disturbed, more time to live and fewer disgruntled patients.

Many will declare that this cannot be done. Nevertheless, it *has* been done and *is* being done, even during these trying days.

First, the doctor must work *hard* while he does work, exercising all his faculties to the limit; striving to learn all he can learn about his line of work and to *keep on learning* as long as he has a mind. He must keep in touch with all the centers of medical and surgical learning—hospitals, research laboratories—and all the literature and other information must be indexed for ready reference, including the work being done in the laboratories of reputable pharmaceutical houses and big industrial plants.

The doctor must be a constant student of human nature; and last, but by no means least, must stand himself up in a corner frequently and take a cold-blooded inventory of his own shortcomings.

After all this has been done comes the time to decide just what it is one wants to do and how to do it. Indecision is the death knell to progress! After deciding is the time for action.

Fortunately for all humanity, most ab-

normalities coming to the doctor for correction are functional at first, and, if nature is given a chance, she will do the correcting. The doctor must be a teacher; not a narrow-minded faddist nor a "one-track mind." He must study and observe the laws of nature and be in a position to teach prevention, as well as to point the way to health.

Patients have not devoted a lifetime to studying health matters and we must take that into consideration. They are victims of habit, which has them by the throat, so they need instruction, encouragement and enthusiasm. To give them this they must be "shown"—they must be taken into our confidence and the "why" and "how" explained at length. They cannot remember all that is said in the consultation room and often do not understand instructions, which are very meager, at times, anyway. It may cost some money and time to have typing done or to buy a mimeograph; but, with advice and instructions written out clearly, they will see what you are driving at and you will get better cooperation.

Every patient must have an hour at the office, when you can devote your entire time to him. You will know by your appointment book just how many patients you can see in a given length of time. To give more appointments than you can comfortably attend to, cheats the patient and cuts down your efficiency. Few will fail to keep an appointment faithfully if they know that is *their* hour and that you are waiting for them.

Point out the hazards of a snap-shot diagnosis, the time it must take to arrive at a clear understanding of the case, also how long it will take for them to see improvement, *before the case is accepted*; then explain the expense the physician must incur to render this class of service and ask for a cash fee for each treatment or a certain sum each week, *in advance*. Make the fee wholly in keeping with the nature of the service and the patient's ability to pay. The Golden Rule should be

ever in the doctor's mind and will be a talisman to prevent a catastrophe. A doctor is human and must heed nature's health laws, as he advises his patients to do; otherwise, away goes his mental and physical efficiency.

This regime means goodbye to house calls, obstetrics and emergency surgery, as one cannot be everywhere at the same time. But the physician can do many lines of work in his office. If he takes two days each week from his work (Sundays, of course, and one in the middle of the week), he will find that breaking the strain twice each week profits him more than working at breakneck speed during eleven months in the year, and then running somewhere for one month's vacation of some sort.

"Big Business" has pointed the way to cash business. It would be well for physicians to study their methods. Every physician must do and wishes to do all he can for the unfortunate (and I know of no profession that does more along this line than ours), but the patients without funds will be few, for they prefer to go to free clinics or free hospitals or to consult the trustee or county physician. Any doctor who casts precedent to the winds and tries hard enough, over the required span of time, can make a success of this plan.

LEON E. WHITSELL, M.D.,

Rushville, Ind.

Noise

WHAT is the cost of excessive noise to us?

That noise is definitely on the payroll and must be dealt with in dollars and cents is apparent once we look beneath the surface. Increase in output, decrease in errors, lessened energy consumption and better physical and mental health are only some of the advantages gained by the use of quieted rooms. It is believed that the elimination of this costly noise in business is of so much importance that it has gradually reached the rank of other building problems, such as lighting, ventilation and heating.

There are several ways of sound-proofing a room: heavy carpets, drapes, new type windows, which permit ventilation but exclude noise, special sound-absorbing plaster and other devices.

Noise of all kinds is on the increase, yet it is as easy to keep out as rain or

sewer gas. Quiet is an essential that we cannot afford to disregard and it can be achieved at a reasonable cost. When we reckon our greatly increased ability to work, the lessened strain in nervous and muscular energy, our much improved physical condition and the calm, quiet and soothing atmosphere of our offices; when we consider all this, the wonder is why we have let matters go so long, why we did not realize the easy solution long before.—DR. P. DORMAN, of Seattle, in *Northwest Med.*, July, 1932.

Paying for the Baby

AN alert representative of a great pharmaceutical house reports that several successful physicians are using a plan like this:

When a woman comes to engage the doctor's services for her confinement, he insists that he must examine her urine from time to time (enough times to make up the amount of his fee for the case), and that each examination will cost \$5.00 (or \$2.00 or \$3.00 or what he pleases), cash.

If the woman carries out his suggestion without complaint, the doctor can give the happy parents, a delightful surprise, when the baby is born, by informing them that his bill is already paid. If not, he can tell them about it when they complain about the cost of the urinalyses.

This looks like a plan well worth trying. We shall be glad to hear from any of our readers who are using special collection or business-getting plans with success.

G. B. L.

Injection Treatment of Hernia

I SHOULD like to correspond with men interested in the treatment of hernia by injection. As soon as I have time, I plan to write another paper summarizing our present knowledge, with special emphasis on the technic of making injections, which seems to be of great interest to the physicians I have talked with. I would like to have them tell me about their experience, so that I can incorporate their ideas, and I will be glad to give demonstrations of patients under treatment here in Springfield, by appointment.

While this mode of cure is not, as yet, definitely established, I feel certain that,

before long, it will be recognized, along with other methods of treatment, and it is my present opinion that it will supplement present procedures and constitute a definite achievement.

F. D. LaROCHELLE, M.D.,
89 Belmont Ave., Springfield, Mass.

When I renewed my subscription for CLINICAL MEDICINE AND SURGERY I happened to mention it to a young physician whose ambition is to become an internist. He is a subscriber to one of the special journals. When I asked him how he liked your journal, he said, "When I get . . . (special journal), I look at the table of contents and lay it aside for future reading, and the same with another important journal; but when I get CLINICAL MEDICINE AND SURGERY, I read it all through right away." — E. K., M.D., Chicago.

An Experiment in Collective Medical Service

In J.A.M.A., July 9, 1932, Dr. G. M. Mackenzie and associates, of Cooperstown, N. Y., report on a small experiment involving the principle of voluntary medical insurance, instituted and carried out by physicians associated with the Bassett Hospital in that town.

The idea was to distribute the cost of sickness (excepting obstetrics) evenly throughout a group, the individual members of which would require, during the term of insurance, varying amounts of medical attention. Those obviously needing surgical or extensive medical service were not accepted as members.

One hundred seventy four (174) members started at \$25.00 a year each (\$100.00 for an entire family of any size), payable in installments if desired. In return, a group of physicians in the hospital agreed to give all necessary treatment, medical and surgical, without additional charge. Ward hospital accommodation, nursing and all necessary hospital charges were included. Private rooms could be obtained at a reduced fee.

The element of outside official domination by state, municipality or insurance company, was completely absent: it was entirely a physician's undertaking.

From financial and other points of view the scheme appears to have worked out quite successfully and satisfactorily to all concerned. The total received from membership dues was \$3,856. The cost of medical services rendered, based on the usual data, was \$3,028 and the administration cost \$615, a total of \$3,643.

The physicians concerned are entirely satisfied with the cooperation and behavior of the members of the group.

BOOKS

Costs of Medical Care

NURSING SERVICES AND INSURANCE FOR MEDICAL CARE IN BRATTLEBORO, VERMONT. A Study of the Activities of the Thomas Thompson Trust. By Allon Peebles, Ph. D. and Valeria D. McDermott. With an Evaluation of the Nursing Program by Violet H. Hodgson, R.N., Assistant Director, and Katharine Tucker, R.N., General Director of the National Organization for Public Health Nursing. Publications of the Committee on the Costs of Medical Care, No. 17. Chicago: The University of Chicago Press, 1932. Price \$0.60.

THE MEDICAL SERVICE OF THE HOMESTAKE MINING COMPANY. A Survey of a Community Medical Service Operated Under Industrial Auspices. By Louis S. Reed, Ph.D. Publications of the Committee on the Costs of Medical Care, No. 18. Chicago: The University of Chicago Press, 1932. Price \$0.60.

Publication No. 17 of the Committee on the Costs of Medical Care, as described above, is a study of the problem of providing adequate nursing and housekeeping services to the sick in a community which has special endowment funds and other facilities for the purpose. The study seems to indicate that there is no one solution of the problem of a nursing service that is adequate for every nursing need in every community and adjusted to every pocketbook.

Publication No. 18 gives details of a study of the working of a particular industrial medical service. The Homestake Mining Co., provides whole-time physicians, with hospital and nursing services, for all their employees and their dependents, without any direct contribution from such employees. In general, the method seems to be satisfactory to all concerned.

NEWS NOTES

Hospitalization

A poll on hospitalization, conducted by Medical Economics, reveals that 65 percent of the reporting physicians think their locality is overhospitalized, while 19 percent feel that they need more hospitals. As to size, 69 percent favor smaller hospitals and 21 percent larger (80 percent of the former have hospital appointments and 80 percent of the latter have none). The great majority of doctors (86 percent) believe that patients could frequently get along as well without hospitalization, while only 8 percent think not.

These figures are worthy of serious thought by all physicians.

THE · CLINIC

SURGERY

Plastic and Reconstructive Surgery*

By Drs. Leon T. LeWald, C. R. Straatsma, H. Lyons Hunt and
Wm. Bierman, New York City

CONGENITAL ABSENCE OF POSTERIOR ORBITAL WALL, ASSOCIATED WITH PULSATING EXOPHTHALMOS

(Report of Three Cases)

By Leon Theodore LeWald, M.D.

CONGENITAL absence of the posterior orbital wall has not been previously reported in the roentgenologic literature. The first case was observed by the author in 1926. This case had been previously diagnosed as sarcoma of the orbit, with invasion of the bone. The roentgen-ray appearances, however, together with a difference in the level of the orbits, associated with a pulsating exophthalmos, led to a correct diagnosis of congenital defect in the posterior orbital wall. The diagnosis was confirmed and the case cured by a transplant of bone by Dr. Walter Dandy, who reported the case in the *Archives of Ophthalmology*, August, 1929.

The second case was associated with a congenital arterio-venous fistula and localized gigantism of the leg. The third case was referred by Dr. John M. Wheeler, and was associated with nystagmus and with von Recklinghausen's disease.

Differential diagnosis between sarcoma of the orbit and congenital defect in the

orbital wall can be made by careful roentgen-ray examination.

Discussion by Dr. J. M. Wheeler

Most cases of pulsating exophthalmos are unilateral and usually are due to an aneurism of the internal carotid artery, or a rupture of this vessel into the cavernous sinus. The salient diagnostic points of an arterio-venous communication within the cavernous sinus are:

- 1.—A bruit which may be heard with a stethoscope when applied over the closed lid and about the eye.
- 2.—Pulsation is ordinarily not visible.
- 3.—Pulsation may be felt after making pressure on the eye-ball.
- 4.—Pulsation is constant.

In cases of congenital absence of the orbital wall, pulsation is not present when the patient is unconscious.

The history of the third case, which Dr. LeWald presented, is as follows: Prominence of the eye and a drooping of the eyelid at birth. There is also some prominence in the temple. The case was diagnosed as neurofibromatosis. These cases are

*Abstracts of the papers and discussions at the June 5, 1932, meeting of The Society of Plastic and Reconstructive Surgery, New York City.

congenital and there is generally pulsation of the globe.

This patient was sent to me for ptosis of the right upper eyelid. Upon examination, she was found to have also a pulsating exophthalmos and elephantiasis of the right buttock, with a girdle extending around the trunk.

At the Presbyterian Hospital, plastic operations were performed on the upper eyelid, with correction of the ptosis, and also on the buttock. At the time of the operation on the upper eyelid, the digital examination of the orbit was made and it was discovered that there was no posterior orbital wall.

A METHOD FOR THE REPAIR OF A SYPHILITIC NOSE

By C. R. Straatsma, M.D.

The author finds the present methods of restoring the lining in the severe syphilitic nose case inadequate. There are two methods in common use: First, the removal of all scar tissue and the relining of the entire nasal cavity with a Thiersch graft; and second, the use of a full-thickness Wolfe graft.

To overcome the objections to these methods, the author employs a tubed pedicle flap from the arm, which may be used to reline the nose and also to repair, at the same time, those deformities which usually occur concurrently, such as fistula, collapse or partial loss of the ala, loss or partial loss of the columella, etc. The tubed pedicle flap method is certain, and it supplies abundant lining, which prevents the contractures so often seen following the other methods of repair. It has been used with satisfactory results in several cases.

Discussion by Dr. W. W. Carter

The correction of nasal deformities due to syphilis is one of the most difficult problems that one encounters. The physical

difficulties to be overcome are very great; the anatomic, physiologic and pathologic problems are greater still.

We must remember that endarteritis obliterans is always present in these tertiary cases. The tissues, therefore, do not respond to traumatism so well as they do in healthy subjects.

In many cases there is a large amount of scar-tissue, which contains very few blood vessels. Unless this useless tissue, which is a great menace in plastic surgery, is removed, we cannot expect uncomplicated healing to occur.

The question sometimes arises as to whether we should operate on a patient who is not Wassermann-negative. At one time I thought that this was an important matter, but, as a number of my patients were operated upon successfully, despite the fact that they could not be made Wassermann-negative, even by prolonged treatment, I concluded that this reaction meant nothing, provided the patient was in good physical condition and had received proper antisyphilitic treatment.

RHINOPHYMA

By H. Lyons Hunt, M.D.

This condition, often simply designated as great hypertrophy of the nose, is probably only an aggravated type of gutta rosea, or acne rosacea. Several of the growths in the present case are sessile in character, and the lowermost one is pedunculated.

While the case is by no means finished, as far as surgical therapeutics goes, as a great deal of hypertrophied tissue must still be removed, I am presenting the patient to bring out the point that it is not necessary, as a rule, in these cases, to prac-

tice skin-grafting after the growths have been removed.

These growths are extremely simple to remove. In this case, the line of incision for each growth has been designed so that the skin covering the growth was, itself, largely saved and dissected free from the deeper rhinophymatous tissue, which was then dissected down to the cartilage, and the skin, although apparently involved, was used instead of newly grafted epithelium.

I have described several of these cases

in my book on this subject and, like the cases so described, this case showed beginning fissures, extending into the cartilage of the nose, but not through the cartilage. When fissures extend through the cartilage, the edges must be freshened and several sutures placed in the cartilage before the wound is closed. If subcuticular horsehair sutures are used in the closing of these wounds, and a salivary extract placed along the wound edge, little if any scarring results and the condition soon becomes normal.

Discussion by Dr. A. B. Hirsh

Some thirty years ago, a Boston physi-

cian issued a volume on various physical (especially electrical) treatment methods, that was full of practical clinical suggestions. Giving clinical illustrations, he described the removal of moderate degrees of rhinophyma by the brush discharge from a static machine, especially in cases that declined operation. Where there was any yellow elastic tissue or muscle fiber left, through the "squeeze and let go" action of the current employed, one got rid of most of the congestion and, by successive seances, gradually shrank the enlarged glandular tissue involved. The results, in those cases of moderate degree, were almost invariably successful.

PHYSICAL THERAPY IN POSTOPERATIVE RECONSTRUCTIVE SURGERY

By William Bierman, M.D.

The main objects of postoperative therapy are:

- 1.—Protection of the healing tissues.
- 2.—Maintenance of a plentiful blood supply.
- 3.—To provide for adequate drainage of lymph and venous blood, in order to prevent stasis, edema and starvation of the grafts.
- 4.—To promote adequate wound drainage.
- 5.—To improve the cosmetic and functional result.

Active hyperemia is induced by heat, moist or dry.

It has been observed that there is less drainage when the "radio knife" is used than when it is not.

Phototherapy may reduce infection. In applying phototherapy, one must be very careful not to cause a too-severe reaction.

Deep sinuses, etc., may be well treated by ionization of either zinc or copper; and erysipelas by ultraviolet or x-rays.

Superfluous hair is, at present, most satisfactorily treated by cathodal electrolysis, and x-rays are not recommended in epilation.

In summation, it may be said that physical therapy has a definite place in all types of reconstructive surgery and should be utilized more often.

Discussion by Dr. Arthur Palmer

Certain it is that physical methods are becoming more and more generally used. In this connection, I want to mention three cases which illustrate one application of a method of physical therapy in plastic surgery.

The first was a case of syphilitic stenosis of the pharynx. This condition is similar to the one which you might find in post-operative stenosis, where there was marked adhesion between the soft palate and the posterior wall of the pharynx.

This woman was about forty-eight years of age and had acquired a syphilitic lesion, causing pharyngeal stenosis. It was just possible to pass a large probe into the opening, and the patient complained of difficulty in breathing and in swallowing. We debated whether we should use the ordinary methods of surgery or try the diathermy cutting current or "electric needle," and decided on this latter method, because of the tendency to less scar formation after its use and less retraction of tissue.

Ten days after the operation there was still some reaction in the tissue. At this time the patient told me she could breathe quite freely through her nose and had less difficulty in swallowing.

This case was followed for about two years, with reasonable improvement in the ultimate condition in the pharynx.



CLINICAL · NOTES AND PRACTICAL · SUGGESTIONS

Diphtheria Prophylaxis

IN the first nineteen weeks of 1932 there were 131 deaths from diphtheria in the City of New York, Dr. Wayne, Health Commissioner, reported recently; while last year the total for the entire twelve months was 186. In the first nineteen weeks of 1931 there were 87 deaths, so that, this year, there was an increase of 44 deaths over last year's first nineteen weeks.

The number of cases in this period was 2,063, against 1,655 in the corresponding period in 1931.

The rise in diphtheria deaths is disappointing to the Department of Health, in view of the fact that, for three years, it made an intense drive against the disease through the diphtheria prevention commission, which passed out of existence in November, 1931.

TOXOID

A reduced mortality rate, however, among children under 7 years of age, may result now from the use of diphtheria toxoid. Toxin-antitoxin is being replaced, in a large measure, by toxoid. The same purpose is served by both, but the toxoid is, not only more certain, but more rapid in action than the toxin-antitoxin mixture.

Park and Schroder, in *American Journal of Public Health*, New York,¹ state that the immunizing effects of their best toxoid have been better than from the best, properly standardized toxin-antitoxin. They have, therefore, recently adopted the toxoid for the children of pre-school age in New York City, but continue to use toxin-antitoxin for the school children and for

such adults, as, for instance, nurses, who require it. They may soon employ the toxoid entirely, especially if they are able to reduce the substances in it which cause pseudoreaction.

Harrison,² in the same journal, summarizes the advantages of diphtheria toxoid over toxin-antitoxin mixture as follows: (1) It is from 20 to 30 percent more effective, even when only two doses are given; (2) it contains no serum or other animal protein likely to sensitize to a later therapeutic serum injection; (3) it is absolutely without local or general reaction in practically all children under 7 years of age. Reactions in older children and adults are only unpleasant, not dangerous; (4) it contains no free toxin; (5) it is more stable, retaining its effectiveness for a longer period, and is not affected by freezing.

Therefore, *the burden of responsibility has been shifted, in no small degree, from the school to the private physician, and it is to him that diphtheria toxoid offers special advantages.*

We know that the diphtheria bacillus, as well as other pathogenic microorganisms, such as the pneumococcus, for instance, are frequently found in the mouth and throat of healthy people, but if there is enough body resistance, they are unable to do any harm, because a good, rich blood is the natural defense against bacteria and their toxins reaching the bloodstream.

Benson³ is of the opinion that the only effective method of stamping out diphtheria is by actively immunizing susceptible

members of the community against the disease. Susceptibles can be readily distinguished from immunes by the intradermal injection of a minute dose of diphtheria toxin—the Schick test. Three intramuscular injections of diphtheria prophylactic (toxoid or toxin-antitoxin mixture), at intervals of fourteen days, will render the majority of susceptible individuals immune to diphtheria within six months. The method is absolutely safe. A child should be immunized early in its second year. The preliminary Schick test* may be omitted. In the immediate presence of diphtheria, an effective passive immunity can be attained within a few hours by the subcutaneous injection of 1,000 units of diphtheria antitoxin. This immunity can be relied on for at least a fortnight.

Extensive investigations and observations show conclusively that in diphtheria, more, perhaps, than in any other disease, prophylaxis is of the greatest importance.

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Impetigo Contagiosa Neonatorum

IMPE^TIGO contagiosa neonatorum, although rarely fatal per se, is a skin disease so distressing to everyone in the hospital that constant vigilance must be practiced to prevent its spread. Brenne-
mann has said rightly that hospitals where impetigo does not occur either have no maternity wards or do not recognize the disease. The disgrace therefore is, not in its appearance, but in permitting it to spread.

Congenital impetigo, while rare, does occur. A baby recently born in the Ravenswood Hospital, Chicago, had definite skin evidence of the disease at birth.

Babies with suspicious skin lesions, of which the pustule is the most common,

should be isolated at once and a thorough investigation made as to the possible carrier of infection. Nurses and nursery attendants suffering from even the most minor pyogenic infection should be excluded from handling the babies or anything coming in contact with them. It is not unusual to see an intern or attending physician with a bandaged finger or hand in the nursery. Why physicians fail to see the danger of a possible spread of their minor infection to a host of newborn babies is not quite clear.

If, after painstaking search, no cause can be found for the infection or its spread, the mother's milk should be examined and, if found to contain any pyogenic organism, should be boiled.

The treatment is simple and sure. Simply breaking the pustule and anointing it with 2-percent ammoniated mercury ointment will clear up almost any case in from one to two weeks.

JOHN P. COUGHLIN, M.D.

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A Test for the Presence of the Gonococcus

THE most annoying and constant accompaniment of acute gonorrhea, paradoxically enough, is the effort of nature to remove the infecting organisms from the foci in the urethra by the activity of the polymorphonuclear leukocytes. These cells, being the one constant factor in the resistance to the invasion of any part of our bodies by harmful microorganisms, are drawn to the urethra because of the presence of the gonococci. No considerable numbers of the white blood cells ever leave the blood vessels except to devour germs, repair wounds or demolish pathologic tissue.

Since the value of phagocytosis in the elimination of bacteria cannot be denied, would it not be a logical therapeutic procedure to still further stimulate nature's effort by a still greater mobilization of the natural defensive cells, particularly if the percentage of the polymorphonuclear leukocytes may be easily increased, and also a noticeable stimulation of the activity of these cells, which may be seen in the greater numbers of diplococci engulfed by the individual cell?

*The prevailing opinion among physicians is that neither the Schick test nor the reaction test is necessary in the case of young children—that all of them may be assumed to be susceptible to diphtheritic infection, and that all of them will tolerate diphtheria toxoid without exhibiting more than a very slight reaction.

It is sometimes said that one stimulant for the cellular system is as good as another. This is not true. Within the past two weeks I have seen a case of gonorrhea which illustrates the truth of my contention. Two months ago this young man was infected with gonococci. For two weeks he used an injection prescribed by a druggist and the malady grew worse. During the following three weeks he was given three intramuscular injections a week of 5 cc. of boiled milk. When he came to me the voided specimen of urine was only slightly cloudy, comparatively few white blood cells being seen in the specimen. However, the urethral smear showed numberless organisms engulfed by the polymorphonuclear cells. So, in spite of the fact that milk is a useful stimulant for the white cells, the induced leukocytosis following 5 cc. doses is moderate and not long maintained. Larger injections are followed by an inflammatory reaction. So, with this case, the annoying discharge was much decreased, but the numberless diplococci seen in the smear showed little improvement.

It was determined at once to increase the numbers of the leukocytes in the urethral discharge. To this end the patient was given 10 cc. of a 1:1,000 solution of hydrochloric acid intravenously. On the second visit, forty-eight hours thereafter, the specimen was very cloudy and the patient reported that within three hours after his first visit it was necessary to reinforce the bag he was wearing to take care of the discharge. The next morning it was "running like a fountain." With each of the following injections, a marked increase in the discharge was noticed. After the fifth injection there was a marked decrease in the discharge, and with it an examination of the smear showed a great decrease in the numbers of infecting organisms, cells that were seen with 10 or more organisms on the first visit now having only two or three, and many organisms were seen not engulfed by the phagocytes. Apparently these were becoming less virulent.

It occurs to me that the observations on this case may be used to determine the presence of the gonococcus in a supposedly cured case. After one has finished with the treatment of any particular case of gonorrhea, the problem at once arises as to whether or not the organisms have been

wholly eliminated. A voided urine specimen is often perfectly clear, the smear is negative for the infecting agent and the patient is discharged as cured. Then a few drinks or a "night off," and the patient returns to the urologist with a profuse discharge from the urethra and numberless intracellular organisms in the smear.

My suggestion is that when one is about to discharge such a patient as free from gonococci after any plan of treatment that may have been used, four or five injections of hydrochloric acid be given intravenously every other day. If the organisms are still in the prostate. Cowper's glands or the mucosa, the acid-stimulated polymorphonuclear cells will certainly go to the infected foci and appear soon in a urethral discharge.

After five such acid injections, if there is no discharge and no unusual number of white cells in the smear from the meatus, one can be very sure the organisms have been eliminated.

For this test for the presence of the gonococci, I suggest 10 to 15 cc. intravenous injections of hydrochloric acid U.S.P., 1:1,000 in distilled water.

One may give the hydrochloric acid solutions intravenously without fear of an inflammatory reaction, save for the one essential factor of that reaction—the cellular stimulation. Clinical observations have also convinced me that the small amount of this purely natural body product, added to the blood stream, also oftentimes is followed by a marked glandular stimulation. This effect on the glands has been most often noticed in the stimulation, apparently, of the testes and ovaries.

BURR FERGUSON, M.D.,

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Simple Formula for Hydrochloric Acid Solution

ON page 683 of the September, 1932, issue of CLINICAL MEDICINE AND SURGERY, Dr. W. I. Howell, of Lexington, Tenn., makes the following statement: "My supply of the acid solution (1:1,500 hydrochloric acid) was then exhausted, and three days passed before I could obtain more."

If Dr. Howell will remember that one drop of C. P. hydrochloric acid in three ounces of distilled water will make the

desired solution, he will not have to wait so long the next time. Even distilled water is not necessary. Boiling water out of the teakettle, filtered two or three times through sterile cotton, is, perhaps, even better than distilled water.

The solution should be made fresh every day or two, and will then not produce any shock or reaction. It is the yeasts, molds and fungi that fall into the water from the air that produce "reactions" in these cases. Even triple-distilled water, left open to the air for two or three days, will give a marked reaction.

J. H. HENDREN, M.D.,

Pineville, Ky.

Fatigue, Good and Bad*

THERE are easily a half-dozen physiologic states that are commonly called fatigue, yet none of them is the real thing, in the strict sense of the word, such as the experimenter in physiology produces when he stimulates a muscle until it cannot act any longer.

Lack of muscular exercise, with its consequent stagnation of blood and lymph, may be one false form of fatigue. Another may be laziness or a similar state, brought about by suggestion; or boredom may be confused with fatigue. A man waking from a sound sleep may think he is tired out, but the process of stretching, yawning or bathing soon drives his so-called fatigue away.

Fatigue may be described under two forms, physiologic fatigue and pathologic fatigue.

Physiologic fatigue is one of the greatest boons in human existence. It results from the expenditure of muscular and mental energy in doing a task which one feels is worth while, and from which one receives a resultant satisfaction.

Pathologic fatigue, however, may be positively devastating in its effects. The pathologically tired person is "too tired to eat," "too tired to sleep," "too tired to get out and have a good time." Nagging, scolding and complaining, the pathologically tired person makes his or her home and family miserable.

Such a state may be produced by many different things or combinations of things

such as disease, worry, dissatisfaction or discontent with one's work or life and its outlook. Or, the task on which the individual is working may be as a tyrant, crushing the life out of its victims. And again, the task may be unsuited to the particular worker.

It is exceedingly important that we should be able to recognize as early as possible the evidences of physical breakdown resulting from any of these or other forms of overstrain. Most of these signs are simply those of continued pathologic fatigue. The following suggestions are offered:

- (1) If you are too tired to enjoy your dinner at the end of the day;
- (2) If you cannot relax after leaving the job;
- (3) If you cannot sleep at night;
- (4) If you despise your work and dread to begin in the morning;
- (5) If you are getting cross and impatient;
- (6) If you are jumpy and crack up easily when the unexpected happens;
- (7) If you are losing weight without apparent cause;
- (8) If you are losing your snap and pep;
- (9) If you are worrying about things you cannot help;
- (10) If you cannot laugh;—

It is time to make a change.

THURMAN B. RICE, M.D.,

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Defense of Dawson's Sex Control

I HAVE been interested in the comments on my little article on sex control, in the July CLIN. MED. AND SURG. (page 536), appearing in the August (page 615) and September (page 685) issues, but my belief in Dawson's method is unchanged, as I have been observing its working for twenty-five years and have never seen it fail when the computations of dates were made correctly, under normal conditions.

In connection with the statements of Dr. Young and Dr. Palmer, I would suggest that, since one kidney can take up the work normally performed by two, following a nephrectomy, it is not unreasonable to suppose that an ovary might do the same. If, in such a case, the woman menstruates every month, she might bear children of both sexes, while if the menses

*Adapted from an article in *Journ. of Outdoor Life*, May, 1932.

appear only every other month, offspring of only one sex might result.

I suggest that my original article be read again, *carefully*, by those who are interested, remembering that I am speaking of *normal* women, and not of those who are abnormal as a result of heredity, disease or surgery; also that the time computations must be based on *normal term deliveries*.

Let the ages of my grandchildren, given in *whole years* only, under their pictures which accompanied my article, may prove confusing, I am appending here a list of their birthdays (including that of the first baby, who died), so that the time cycles can be figured accurately.

(M) First son deceased)	Feb. 17, 1910
(F) Eileen	Aug. 21, 1913
(M) Edward	Mar. 1, 1916
(F) Harriet	July 16, 1918
(M) Robert	Oct. 2, 1922

Harriet and Robert were born a week or two before the expected dates, and Eileen a week or two after.

Sometimes a woman menstruates for a month or two after she becomes pregnant. Care must be taken to check all circumstances.

It may take an expert to figure out hypotheses, but any man with his five senses and ordinary intelligence can make observations of facts and record them. This I have done, and Dr. Rumley Dawson has offered the best explanation of what I have seen that I have so far encountered.

JOHN S. MEYER, M.D.,

Caldwell, Idaho.

Sleep*

SLEEP is generally looked upon as the most complete form of rest. The sleeping person takes no notice of events and does not respond to changes in his environment.

The position of the body in sleep is of relatively little importance, since no position is held for any great length of time. The average time between stirs, as determined by actual tests, is about 10 minutes and the longest about one hour. Since these movements are of very short duration the total time one spends in moving about probably does not exceed five min-

utes in a night. Sleep, then, may be looked upon as a period of almost complete muscular inactivity.

During sleep there is a decrease in activity of the heart, which leads to a lowering of the arterial blood pressure. These in turn decrease the danger of hemorrhage in disease. The absence of disturbing external influences also has a beneficial effect upon the circulation and respiration.

Sleep decreases the basal metabolism and tends to reduce the temperature. Muscular activity results in the production of large quantities of heat, which cannot be dissipated as fast as they are produced. This leads to a temporary rise in temperature. Through rest in bed and sleep one can hold the temperature at a lower level.

Practically all of the glands in the body secrete less during sleep than during the waking state. A notable exception is found in the sweat glands. The cause of increased secretion of sweat in sleep probably represents an attempt of the body to get rid of an excess of heat accumulated because of insufficient ventilation of the space between the skin and the bed clothes and also of the bedroom.

There is decreased wear and tear of the living matter of the body during sleep and a consequent upbuilding, which is especially beneficial to the tuberculous. Under these conditions it is desirable to increase the duration of sleep as much as possible.

Everything tending to cut out sensation favors the onset of sleep. The newborn baby sleeps for eighteen to twenty-four hours a day, waking up every four or five hours because of hunger or discomfort, but such a baby is blind and deaf for the time being and experiences none of those sensations that may disturb an adult.

Sound sleep is promoted by regular hours and regular habits. Worry, fear, anger or undue excitement may produce restless sleep, because they interfere with relaxation. When one cannot sleep, it is well for the sufferer from insomnia to give up trying and to resign himself to lying awake. It should be noted that the decrease in muscular, circulatory, respiratory and metabolic activities occurring in sleep is largely due to rest in a horizontal position, and lying quietly awake, therefore, is nearly as good as sleep.

N. KLEITMAN, Ph.D.,

Chicago, Ill.

*Adapted from an article in *Journ. of Outdoor Life*, Feb., 1932.

THE · LEISURE · HOUR

A Man's Thanksgiving

GOD of common sense, I give Thee thanks for the heavy blows of pain that drive me back from perilous ways into harmony with the laws of my being;

for stinging whips of hunger and cold that urge to bitter strivings and glorious achievement;

for steepness and roughness of the way and staunch virtues gained by climbing over jagged rocks of hardship and stumbling through dark and pathless sloughs of discouragement;

for the acid blight of failure that has burned out of me all thought of easy victory and toughened my sinews for fiercer battles and greater triumphs;

for mistakes I have made, and the priceless lessons I have learned from them;

for disillusion and disappointment that have cleared my vision and spurred my desire;

for strong appetites and passions and the power they give when under pressure and control;

for my imperfections that give me the keen delight of striving toward perfection.

GOD of common good and human brotherhood, I give Thee thanks for siren songs of temptations that lure and entangle and the understanding of other men they reveal;

for the weaknesses and failings of my neighbors and the joy of lending a helping hand;

for my own shortcomings, sorrows and loneliness, that give me a deeper sympathy for others;

for ingratitude and misunderstanding and the gladness of service without other reward than self-expression.—A. W. NEWCOMBE, in the Northwest Medical, November, 1931.



Autumn

There is a chill that creeps along the cold;
It never used to penetrate me so!
Nor send a thrill of fear to pierce below
The armor of my cheer.

Can this be growing old?

Does ageing mean a wailing in the wind,
A little fringe of brown along red leaves?
Does it mean trembling feet? My step
deceives,
It is no longer fleet.

Is this youth left behind?

I creep into the ruddy chimney place
And stretch stiff fingers to the embers' glow;
It will be going out, it will be dark, I
know;

I shall be chill, no doubt:

Still, let me turn to night a shining face!

—ADA BORDEN STEVENS, in *L'Alouette*.

A Good Lead!

A minister, substituting for a friend in a remote country parish, was greatly surprised on observing the old verger, who had been collecting the offertory, quietly abstract a fifty-cent piece before presenting the plate at the altar rail.

After service he called the old man into the vestry and told him with some emotion that his crime had been discovered.

The old verger looked puzzled for a moment. Then a sudden light dawned on him.

"Why, sir, you don't mean that old half-dollar of mine? I've led off with that for the last fifteen years!"—*Patchwork*.

A hick town is a place where the Smith heirs put up a higher monument, to show them Joneses who's who.—*Fountain Inn Tribune*.

Now there's a new machine that feels your head and tells you how much brains you have; but you can sit under a steering wheel and get the same result.—ROBERT QUILLEN.

Cause for Thanks

"Thankful! What have I got to be thankful for? I can't pay my bills."

"Then, man alive, be thankful you're not one of your creditors."—*National Magazine*.



Serious Dangers

We was motorin' one day, Paw and me,
And there was a sign one place that you
could see

For the automobileels, that said, "Look Out
For Soft Shoulders" (meanin' the road)
but Paw sez, "Well,

Soft shoulders ain't nothin' for raisin' hell
Like some things I could tell 'em about."

—B. H.

Furious Progress of Science

Doctor—"What? Troubled with sleeplessness? Eat something before going to bed."

Patient—"Why, Doctor, you once told me never to eat anything before going to bed."

Doctor (with dignity)—"Pooh, pooh! That was last January. Science has made enormous strides in the last few months."
—*Pharmaceutical Advance*.

Cause and Effect

Voters are people who scare a politician into doing something foolish, and then cuss him because it wasn't wise . . . If the kid is so yellow that he will burn his town to escape the wrath of a few bullies, don't worry. He'll make a swell Congressman.—*Fountain Inn Tribune*.

THUMBNAIL · THERAPEUTICS

Vitamin A Deficiency and Respiratory Disease

It would appear likely that certain conditions, reported as arising from a vitamin A deficiency in experimental animals, might occur in the human body. It would at least seem the wise procedure to assume that there is a possibility that lowered resistance, colds and respiratory infection will follow a low vitamin A intake and to see to it that a liberal amount of this essential is provided at all times.—DR. E. J. QUINN, of New York, in *M. J. and Record*, Mar., 1932.

Calcium Gluconate in Agranulocytic Angina

Agranulocytic angina is of interest because of its unknown etiology, its high mortality and the lack of specific therapy. In a fatal case reported, the patient was allergic and an improvement in the blood picture was noted following administration, intravenously, of 1 Gm. of calcium gluconate in 10 cc. of solution, each day for four doses.—DRS. R. A. HARE and J. H. CHILDREY, of Santa Barbara, Calif., in *J.A.M.A.*, June 25, 1932.

Sodium Ricinoleate as a Detoxifying Agent

A solution of 2-percent sodium ricinoleate, with the addition of 1-percent calcium-magnesium-free sodium chloride, prepared with distilled water, was found to give excellent service in a series of cases with gangrenous ruptured appendixes or general peritonitis with marked toxemia. The mixture was poured into the abdominal cavity, followed by insertion of a cigarette drain, and the wound closed. Brilliant results were also obtained by packing osteomyelitic cavities with dressings soaked with sodium ricinoleate

solution, to which a bacteriophage of staphylococcus aureus was added.—DR. P. W. LUTTERLOH and H. A. STROUD, of Jonesboro, Ark., in *Internat. J. Surg.*, Jan., 1931.

Treatment of Chronic Alcoholism

In cases of chronic alcoholism one cannot substitute any other form of drug for alcohol and allay or abort delirium tremens. The mere deprivation of alcohol does not remove the effect of the alcohol nor destroy the desire for it. Alcoholic drinks, even if in small quantities, may be administered while the patient is being treated by catharsis and with a belladonna-hyoscyamus mixture. The patient should then be returned to the family doctor for special supervision. The proper psychotherapy will unearth the underlying inner conflicts of the individual.—DR. I. D. WILLIAMS, in *J. Nerv. & Ment. Dis.*, Aug., 1931.

Quinidine and Digitalis in Tachycardia

Quinidine, in most cases of supraventricular tachycardia, is the more desirable drug for arresting an attack, though in the presence of heart failure, digitalis will act and may be the drug of choice.—DR. C. W. BARRIER, of Ft. Worth, Tex., in *Ann. Intern. Med.*, Jan., 1932.

Hyperemesis Gravidarum

The four principal factors of hyperemesis gravidarum—starvation, dehydration, hepatic derangement and neurosis—demand treatment by

- 1.—Rest in bed with isolation.
- 2.—Sedatives.

3.—Intravenous administration of 10-percent dextrose in isotonic saline solution, in amounts up to 3,000 cc. daily, until the urine is increased to at least a liter.

4.—The use of larger amounts of carbohydrate and protein, by duodenal tube in certain cases.

The first two are used to overcome the neurosis, the third the dehydration, and the fourth, the hepatic derangement.

The same principles indicate the prophylactic measures which should be used in the treatment of early mild nausea and vomiting.—DR. H. B. VAN WYCK, of Toronto, in *Am. J. Obst. & Gynec.*, Feb., 1931.

Atropine Treatment of Post-encephalitic Parkinsonian Syndrome

Twenty-one (21) chronic encephalitic patients at Eastern Oklahoma Hospital were placed on the atropine sulphate treatment (using a $\frac{1}{2}$ of one percent solution), originated by Stempler, of Munich.

Beginning with one drop three times a day and increasing one drop per dose daily, the maximum dosage reached was 10 to 18 drops three times a day, which is continued. Most gratifying results as regards the Parkinsonian syndrome were obtained.

The patients should be hospitalized, as alarming reactions may occur before the optimal dosage is reached. At least 80 percent of these patients gave a great deal of trouble between the ninth and fourteenth day. Bladder symptoms generally develop, which can be obviated by increasing the dose more slowly.—DRS F. M. ADAMS and P. L. HAYS, in *J. Okla. St. M. A.*, Aug., 1931.

Malignant Neutropenia Treated with Nucleotides

Twenty (20) cases of malignant neutropenia of varied etiology were treated with intramuscular and intravenous injections of pentose nucleotides; in 14 cases recovery took place.

In acute cases, 0.7 Gm. in 100 cc. of saline solution, was injected intravenously, daily for four days. Seven-tenths (0.7 Gm.) in 10 cc. of distilled water was also given in addition intramuscularly on the same days and on each day subsequently until definite improvement had occurred. The special preparation of nucleotides

used, "Nucleotide K 96," worked out by the authors, is obtainable from the Smith, Kline and French Co.—DR. H. JACKSON, JR., and associates of Boston, in *J. A. M. A.*, Nov. 14, 1931.

Treatment of Epididymitis

Of 11 cases of acute epididymitis treated by intravenous injections of diamindsulphoricinargentum (Neo-Vonargen), 7 received no other treatment and returned to normal after 3 to 6 injections (10 cc. of 1/8 percent to 10 cc. of 1/2 percent). In most cases the pain was relieved in from 3 to 24 hours and in no case was there any reaction.—DR. J. E. F. LAIBE, of Chicago, in *Illinois M. J.*, June, 1930.

Diet and the Production of Human Milk

Experiments on animals have demonstrated that milk production is improved by changing the protein factor in the diet. Liver was found to be a much better source of protein for lactation than either eggs or round steak.

The problem of human lactation calls for extensive research along the lines of investigation of proteins in the mother's food.—Editorial, *J. A. M. A.*, Feb. 27, 1932.

Precautions in Serum Therapy

Two drugs have been found useful in the prevention and treatment of serum therapy accidents. They are atropine sulphate and adrenalin (epinephrin) chloride, the latter being more effective. Atropine or epinephrin or both should always be on hand when administering serum to any patient. If shock occurs, satisfactory results are obtained only when these drugs are given immediately; a few minutes delay may be disastrous.

When a patient is extremely sensitive to a serum, and circumstances make it necessary that he receive the serum, large doses of hypnotics can be given, but better still is an anesthetic. It has been found that light ether narcosis reduces the tendency to serum accidents or shocks.—DR. A. V. STOEGER, in *J. Lancet*, Aug. 1, 1931.

Current · Medical · Literature

Etiology of Colds

In *Ann. Intern. Med.*, June, 1932, Dr. John E. Walker, of Opelika, Ala., expresses his opinion that the reported experiments relating to the hypothesis that colds are due to a filtrable virus are inadequate to support the hypothesis. Such disturbing factors as difficulty in diagnosis, the influence of suggestion on the subjects, the irritative properties of the filtrates on the nasal mucosa, and the possible presence of allergic reactions to the filtrates have not been properly controlled. With the means at present at our disposal, it is even doubtful whether the hypothesis can be submitted to proper experimental test.

The filtrable virus hypothesis rests on another hypothesis, namely, that ordinary respiratory bacteria are not concerned in the primary etiology of colds. This underlying hypothesis is likewise unproved. Two personal observations are cited which demonstrate that causative bacteria may be absent in early cultures made from the exudate in colds. These, and other instances from the literature, favor bacteria as being the extrinsic factor in the etiology of colds.

The early reaction in colds is probably very similar to the hay-fever reaction to pollens. The difference consists in the fact that the etiologic agent of colds (bacteria) possesses the power of multiplication and of tissue invasion. Later they may give rise to a purulent exudate. The etiologic agents may be very numerous in culture only in this purulent exudate. The late appearance of bacteria in cultures does not prove that they are merely secondary invaders.

Acetarsone by Mouth in Treatment of Congenital Syphilis

In *Am. J. Dis. Child.*, June, 1932, Drs. C. H. Maxwell and J. Glaser, of New York, report the result of their investigations into the value of acetarsone (known as Stovarsol, in France) in the treatment of congenital syphilis.

Acetarsone was given to 12 infants under one year of age, either manifestly syphilitic or the offspring of syphilitic mothers. The drug was used in 9 children from 1¼ to 10 years old, with congenital syphilis, but for insufficient time to enable definite conclusions to be drawn.

From their findings the authors conclude that acetarsone probably has a definite place in the treatment of congenital syphilis. That the drug cannot be used indiscriminately, as the reports from some foreign clinics might be interpreted to suggest, is amply demonstrated by one fatality and some toxic manifestations that occurred in the author's small series.

The advantages of the peroral treatment for congenital syphilis over the methods usually

employed are evident. However, the exact position that acetarsone should occupy in the treatment of congenital syphilis, at least as far as this country is concerned, remains yet to be determined by those who have at their disposal sufficient clinical material for the study this drug deserves, and sufficient interest to follow their cases carefully, so that there will be a minimum of danger to the patients concerned.

Age Factor in Active Immunization of Infants Against Diphtheria

In *J.A.M.A.*, May 7, 1932, Dr. J. Blum, of New York, gives the following conclusions arrived at following a study of the age factors in active immunization of infants against diphtheria:

- 1.—The response to active immunization with toxin-antitoxin was least from birth to 3 months of age (about one-third failures), and greatest from 2 to 4 years of age (about 5 percent of failures). Of infants under 9 months of age, from one-fourth to one-third failed to respond to active immunization.

- 2.—The tissues of the infant respond best to active immunizing measures after the passive immunity inherited from the mother is lost.

- 3.—Infants under 9 months of age should not receive toxin-antitoxin without a preliminary Schick test.

- 4.—As a public health measure, it may be advisable to provide active immunization for infants from 6 to 9 months of age, if they cannot be inoculated at another time.

- 5.—All children should be given the Schick test from three to six months after immunization. This precaution is often neglected.

- 6.—Only 2 of the 198 individuals who died from diphtheria in New York City in 1930 had received protective immunization.

- 7.—The reduction in mortality from diphtheria in the large cities of the United States in 1930, compared to that of five years ago, is more than 50 percent.

- 8.—It is quite possible that the intensive campaign of active immunization in New York City during the past few years has been an important factor in the lessening of the incidence of the disease by about 70 percent.

Vitamins and the Teeth

Discussing, in *M. J. & Record*, Mar. 2, 1932, the adult's need of vitamins, W. H. Eddy, of New York, remarks that there is increasing dissatisfaction with the theory that dental caries, gingivitis, pyorrhea and kindred ills are entirely explicable by bacterial invasion and that oral hygiene alone will eliminate these troubles. The

studies of a large group of workers are giving indications that diet not only determines the formation of strong teeth and healthy gums, but is an equally important factor in maintaining dental health.

Among these dietary factors we have a strong indication that the formation of dentine is directly controlled by the dosage of vitamin C and that, for satisfactory odontoblast function, we need daily at least twice the amount of this factor we had formerly assumed essential to the prevention of scurvy.

Vitamin C is, however, only one factor necessary to sound dentition. Vitamin A, D and B have all been shown to be important.

Copper and Iron in Secondary Anemia

In *M. J. & Record*, Mar. 16, 1932, Drs. G. W. Caldwell and R. H. Dennett, of New York report upon a group of 100 cases of anemic children, selected from the outpatient department of the hospital, who were treated with copper and iron. The ages varied from 1 month to 12 years. The average hemoglobin was 64 percent and the average red blood cell count 3,605,000 per cubic millimeter.

The average number of days on the iron and copper therapy was 30, after which time the average hemoglobin had risen from 64 percent to 84 percent and the average red blood cell count from 3,605,000 to 4,408,000 per cubic millimeter. Coincident with the improved blood picture, there was an improvement in the appetite in 80 percent of the cases, together with an improvement in the color of the skin and mucous membranes and general physical condition. There was no coincidence of any gastric distress following the iron and copper therapy.

The dosage of copper and iron which was used consisted of copper, 0.25 mg. and 32 mg. of elemental iron, which was given in milk three times a day.

Need of Larger Doses of Viosterol in Severe Rickets

As reported by Drs. M. Jampolis and S. Londe, of Chicago, in *J.A.M.A.*, May 7, 1932; two brothers, both suffering from severe rickets (osteomalacia type), which developed in spite of cod-liver oil prophylaxis, were studied over a period of eight months in the hospital and four months in the outpatient department. One received gradually increasing doses of viosterol and the other gradually increasing amounts of 10 D cod-liver oil with viosterol.

The child receiving viosterol showed no response to treatment until the amount given was ten times the dosage usually advocated for the cure of severe rickets.

Large amounts of 10 D cod-liver oil with viosterol (from 15 to 60 cc.) had no curative effect, after five and one-half months of trial in this severe type of rickets. The child receiving this preparation showed no signs of improvement until an amount of irradiated ergosterol equivalent to 5 cc. of viosterol in oil 250 D

was added to the 10 D cod-liver oil with viosterol. When cod-liver oil was discontinued and 2 cc. of 1,000 X viosterol (equivalent to 20 cc. of viosterol in oil 250 D) was given, roentgenograms showed beginning healing after eleven days.

Vaccine in the Treatment of Whooping Cough

Varying results have been reported in the literature from the use of vaccines in the treatment of whooping cough.

In *Northwest Med.*, Apr., 1932, Dr. M. L. Bridgeman, of Portland, Ore., states that, of 147 cases of children, within the ages of 3 months and 10 years, with pertussis and treated with vaccine, in 87 percent of 94, inoculated within the first seven days of the disease, favorable reports were received, and in 43 percent there was only a mild or very light attack.

Whooping cough was prevented in 26 percent of 91 children exposed within the same household and in 70 percent of those who were exposed one or several times by a neighbour's child.

A mixed serobacterin stock vaccine was used, which contained 5,400,000 pertussis organisms per cubic centimeter. The children were given an initial dose of 0.5 to 0.8 cc. and on every third or fourth day 0.8 to 1 cc. and a fourth inoculation of 1.5 to 2.00 cc.

There was no severe reaction in any case.

Immunity to Poliomyelitis

There is increasing difficulty in harmonizing the known facts of the epidemiology of poliomyelitis with the historic belief that adult immunity to this disease is specific and can result only from previous personal contact with the specific virus. Some observers have denied this specificity and have suggested that immunity to poliomyelitis is but part of a general "serologic ripening," roughly synchronous with the development of sexual maturity.

Proponents of this theory, however have not lost sight of the fact that such a nonspecific immunity is not the only conceivable method of immunization to poliomyelitis which does not necessitate previous personal contact with the specific virus.

About seven years ago Heidelberger and his co-workers, of the Rockefeller Institute, showed that the characteristic antigenic sugar of Type II pneumococcus is also found in the Friedländer bacillus. Similar chemical relationships have been shown to exist in other organisms. Recently Zotaya has alleged that a sugar of at least approximately the same antigenic potential as the characteristic polysaccharide of the meningococcus is demonstrable in *Bacillus anthracis*, and, even more surprising, is present in such common saprophytes as *B. proteus*, *B. subtilis* and *B. mesentericus*. Whether or not an habitual diet, rich in these saprophytes, can function as a successful fractional oral vaccine against meningitis, has not yet been determined. The corresponding pneumococcus polysaccharides, however, have been shown to be resistant to gastro-intestinal enzymes. There is well con-

firmed laboratory and clinical evidence that they are absorbed from the gastro-intestinal tract in sufficient quantities to function as successful oral vaccines.—Editorial in *J.A.M.A.*, Apr. 9, 1932.

Parenteral B.C.G. Vaccination

From experience in the Health Department of New York City, of both the oral and parenteral methods of administering B.C.G. vaccine, Dr. C. Kereszturi and associates state, in *Am. J. Dis. Child.*, Feb., 1932, that intradermal B.C.G. vaccination is superior to the subcutaneous method because, if the technic is correct, no cold abscess develops. On the other hand, hypersensitiveness to tuberculin occurs a little more frequently and lasts somewhat longer when the subcutaneous method is employed.

In 87 percent of the authors' parenterally vaccinated patients, hypersensitiveness to tuberculin developed, either temporarily or for a longer period. The use of both the subcutaneous and the intradermal methods of B.C.G. vaccination has been harmless.

Intravenous Injections of Hydrochloric Acid in Asthma and Kindred Conditions

In *Southern M. & S.*, May, 1932, Dr. C. DeW. Colby, of Asheville, N. C., reports that leukocytosis and phagocytosis were produced in 10 cases of advanced pulmonary tuberculosis complicated by suppurative processes, by means of intravenous injections of hydrochloric acid, with surprising improvement in certain apparently hopeless cases.

The technic consisted of the introduction into a vein of a solution of 1 part of chemically pure hydrochloric acid to 1,500 parts of triple-distilled water, with a beginning dose of 2 or 3 cc., continuing up to 10 cc., every second day to one week.

In 18 cases of asthma, hay-fever, acne, sinusitis and epilepsy, treated with hydrochloric acid injections, there was improvement in all, with what appears to be a cure in 4 and, possibly, after a longer period of observation, in several more.

The author concludes that, whatever the chemical or cellular reaction involved, the results, so far, seem to justify further trial. The procedure is harmless, with strict technic.

Peritoneal Adhesions

From a study of the literature and a series of animal and clinical investigations of the formation of peritoneal adhesions following abdominal trauma, Drs. Alton Ochsner and E. Garside, of New Orleans, in *Surg. Gynec. & Obst.*, Feb. 15, 1932, report the following conclusions:

Peritoneal adhesions are protective in the presence of infection. Normally, the diffuse fibrinous adhesions which form in the peritoneal cavity following mechanical, chemical or bacterial trauma disappear after their usefulness has been served, the fibrin being digested by a proteolytic ferment liberated from polymorphonuclear leucocytes. If the fibrin is not removed, it becomes organized; i.e., replaced by fibrous tissue.

Following division of the fibrous adhesions, they may recur. Individuals with an inherent tendency toward the development of fibrous tissue; i.e., "adhesions diathesis" or "keloid tendency," are especially apt to reform adhesions after their division.

Numerous substances and methods have been used to prevent the formation and reformation of adhesions, but few have proved to be of any value.

In the present investigation, the efficacy of digestive ferments in the prevention of the formation and reformation of peritoneal adhesions was determined.

Following division of pre-existing adhesions, adhesions reformed in 100 percent. If, however, saline solution was added to the peritoneal cavity following division of the adhesions, few or no adhesions reformed in 13.32 percent. If trypsin and papain solutions were added, few or no adhesions formed in 42.28 percent and 90.89 percent, respectively. It is evident that, experimentally at least, digestive ferments (especially papain) are of value in preventing the reformation of peritoneal adhesions.

Trypsin and papain solutions have been used in 14 clinical cases. The period of observation is still too short for one to draw any conclusions concerning the end-results in these cases. In one case, however, operated upon several times for adhesion ileus, in which trypsin was employed, there has been a recurrence of adhesions. The others have remained free from symptoms for from 6 months to 5 years. From both our experimental and clinical observations, we are convinced that the intraperitoneal injection of papain solution in the dilutions recommended (1:50,000 and 1:100,000) is entirely without danger.

Skin Diseases Due to Focal Infections

Discussing the newer aspects of dermatology, Dr. U. J. Wile, in *Ann. Intern. Med.*, Mar., 1932, emphasizes that foci of infection play either a causal or a casual part in the etiology of many dermatoses, or their presence may have nothing whatever to do with the disease in question.

Where the foci are causal, we are dealing with true focal infection, as determined by blood-borne dissemination of the pathogenic organism from the focus to the satellite lesion. This occurs in a proved fashion in syphilis, cutaneous tuberculosis, certain tuberculides, the trichophytides, sporotrichosis, tularemia, systemic blastomycosis, vaccinia and scarlet fever. A casual relationship occurs between foci and certain dermatoses with such frequency as to merit notice, and possibly to constitute a contributory etiologic factor in such conditions as erythema multiforme, dermatitis herpetiformis and alopecia areata.

To the focal infective processes might well be added a group in which foci of infection play a direct part in the causation of satellite cutaneous lesions, in which pathogenic organisms are not present, but in which the tissue damage is apparently due to a toxic process. This occurs in herpes zoster, in some of the so-called toxic tuberculides, in many of the multiform erythemas,

and occasionally in urticaria. This group might properly be referred to as focal irritative processes.

Hexylresorcinol as a Venereal Prophylactic

The essential qualities sought for in a venereal prophylactic agent are that it shall be effective, painless and stainless.

As reported in *Mil. Surgeon*, Feb., 1932, by Lt. Col. M. Ashford and Col. L. M. Hathaway, M.C., U.S. Army, experimental observations in which several thousands of urethral injections have been made, have been carried out at Honolulu with the following results:

1.—That hexylresorcinol in 25-percent solution in distilled water is practically as efficient as a prophylactic against gonorrheal urethritis as is protargentum in 2-percent solution.

2.—That hexylresorcinol in 25-percent solution in distilled water is painless, stainless and more popular than the protargentum 2-percent solution, as a venereal prophylactic for use in the military service.

3.—That hexylresorcinol in 25-percent solution is more effective as a venereal prophylactic than in 50-percent or 33-percent solution.

Tubal Insufflation in Sterility

In *Illinois M. J.*, Feb., 1932, Dr. S. D. Soter, of Chicago, expresses the opinion that more than 60 percent of sterile woman have closed fallopian tubes; insufflation tests should precede any other attempt to ascertain the cause of sterility except that of determining the fertility of the male.

The author uses air for insufflation, employing the pressometer designed by Dr. J. Jarcho, of New York. A manometer reading over 150 millimeters of mercury usually signifies obstruction of the inflow of gas through the tubes.

Fallopian tubes with constricted or obstructed lumen may sometimes be dilated enough by the gas to permit the passage of an ovum. Pressure over 200 millimeters is dangerous and should be used with caution.

At least three attempts should be made at monthly intervals before a tube is declared occluded definitely.

Fractures of the Mandible and Maxilla

Automobile accidents are responsible for many fractures and dislocations of the mandible and maxilla, and when not very prominent these may be overlooked.

In *Radiology*, Jan., 1932, Drs. L. Rogers, C. T. Hall and J. H. Shackelford, of Detroit, who during 1928 to 1930 treated over 1100 such injuries, present a detailed exposition of their method of dealing with them.

Interdental wiring is considered the best method for immobilizing fractures of either the maxilla or mandible. The teeth are always placed in normal or original occlusion. If this is not accomplished at the first sitting, the teeth will usually pull into position when the wires are tightened the second or third day, and the

muscles of mastication will always be at rest. When the teeth are placed in original or normal occlusion the fragments of the bone must be in correct anatomic position; when the teeth are present, no fracture requires more accuracy in reduction than that of the mandible.

The advantages of interdental wiring are:

1.—Normal or original occlusion, correctness of median line, and harmony of facial expression are obtained.

2.—Only a few instruments and 28-gauge wire are required.

3.—Interdental wiring requires less time than the making of splints.

4.—Interdental wiring is not annoying to the patient.

5.—Interdental wiring is the most accurate and dependable of all methods.

Method of Interdental Wiring.—The authors' favorite method for reducing fractures of the mandible is to support the mandible (teeth in occlusion) to the maxilla from three points: the bicuspid or first molar region, on each side of the mouth, and the centrals in the anterior portion.

A piece of wire, 26- or 28-gauge, 10 inches long, is doubled and twisted around a small round instrument (a wooden applicator is a good size) about two or three turns, producing a small loop or eyelet at the end of the wire where it is doubled. The wire is now taken and the two ends are inserted at the buccal surface, passed from the buccal to the lingual surface, and then pulled through between the second bicuspid and the first molar, leaving the eyelet protruding a little just buccalward of the soft tissue between the two teeth. The proximal wire is then pushed from the lingual to the buccal surface, between the first and second molars, is pulled tight, and passed through the eyelet. The distal wire is passed from the lingual to the buccal surface between the first and second bicuspid and pulled tight. With a small blunt instrument, the wires are pushed well up on the necks of the teeth and the two wires are twisted to the right and pulled outward at the same time until they are firm and secure. The rule of twisting all wires to the right has proved helpful.

The other wires are placed below in the same manner and on the opposite side and the anteriors passed between and around the centrals. The mandible is then occluded with the maxilla. Usually two wires are passed through the loop on the upper and then through the loop on the lower teeth. The teeth are brought into correct relationship, and the wires are twisted tight by a turn to the right and a gentle pull outward. The wires are then cut short and turned in so as not to interfere with cheeks or lips. All wires must be kept tight so that they will not slip.

In wiring the mandible to the maxilla in this manner, it is a very simple matter to cut the three wires, if for any reason the mouth has to be opened. Only a few minutes are required to pass new wires through the same eyelets and retie the teeth in occlusion. Lacing the two teeth together as described, to hold the eyelet in place, offers less opportunity for loosening of the teeth than if single teeth were used.

Vitamin Standardization

Last year the Standardization Commission of the Health Organization of the League of Nations formulated tentative standards for the vitamins A, B, C and D.

For vitamin A the standard is 0.001 mgm. of pure crystallized carotene, prepared in a prescribed manner.

The vitamin B standard is 10 mgm. of an absorption product prepared from rice polishings treated with sulphuric acid and fuller's earth, as made in the Medical Laboratory, Java, by the Seidel method.

The unit for vitamin C is 0.1 cc. of fresh lemon juice.

The vitamin D standard unit was defined as the activity of 1 mgm. of the vitamin-standard solution of irradiated ergosterol, prepared as prescribed by the Commission.

These standards are adopted unanimously by all countries until further confirmed or changed by the Commission.—From Editorial in *Internat. Med. Digest*, Jan., 1932.

Surgical Endothermy in Suprapubic Prostatectomy

Dr. P. Aschner, of New York, in *Am. J. Surg.*, Feb., 1932, suggests that the gauze packing of the prostatic bed in prostatectomy, while it lessens immediate bleeding, favors secondary hemorrhage and is a factor in other postoperative phenomena, such as intense cystitis and virulent ascending infection of the ureters, pelvis and kidney.

The author recommends and practices a method of dealing with benign prostatic hypertrophy with urine retention, in which a small portion of the vas deferens is resected in a preliminary operation. Catheter vesical drainage is then instituted and continued until there are no contraindications for prostatectomy.

The prostatectomy is executed with the endotherm knife and, according to the technic described by the author, there is no need for packing of the prostatic bed, but only of the space of Retzius and of the peritoneal reflection, the abdominal wall being closed about the drains. There usually is no more bleeding than after a simple cystostomy. The method is not applicable to those patients in whom indwelling catheter drainage cannot be employed or when there is any complication which necessitates a two-stage prostatectomy.

Vaginal Trichomoniasis

Leukorrhea, according to Dr. P. Brooke Bland, of Philadelphia, in *Southern M. J.*, Jan., 1932, is not only the most frequent but the most significant local symptom in all pathologic conditions involving the genital organs.

When the cervix is relatively normal, the author considers that trichomoniasis may be looked upon with a fair degree of certainty as basically the provoking factor. In 600 pregnant women, the organism was found in 22.7 percent. It is more frequent in the colored than in the white race.

An effective treatment of leukorrhea due to

the *trichomonas vaginalis* is cleansing of the vaginal canal, swabbing with 1-percent solution of picric acid, the plentiful use of kaolin powder and copious douches of Lugol's solution of iodine night and morning.

Treatment of Acute General Peritonitis

Dr. L. F. Barney, of Kansas City, in *Western J. Surg. Obstet. & Gynec.*, Feb., 1932, recommends continuous gastric lavage, with venoclysis, in the treatment of acute generalized peritonitis. The gastric lavage is done through a nasal tube and the venoclysis by the ordinary Murphy drip method, at the rate of 4,000 drops each 24 hours.

When the nasal tube is once inserted and the gastric contents have been washed away, patients may be given fluids freely and will take thousands of cc. without distress. The fluids swallowed, together with the toxic material it comes in contact with, immediately siphon away.

Under the treatment of continuous gastric lavage and venoclysis in peritonitis, opium, hot packs, pituitrin, enemas, laxatives, etc. have been relegated to quite a secondary place. Within 24 hours after starting the treatment the peritonitis was usually arrested, euphoria increased and, usually about the third or fourth day, the bowels moved without assistance.

Treatment of Running Ears

Summarizing the many treatments recommended for running ears, Dr. G. B. McAuliffe, in *M. J. & Record*, Feb. 3, 1932, states that proper syringing is suitable in the treatment of otorrhea, using boric acid or sodium chloride in physiologic solution, both of these being practically isotonic with the blood plasma.

Of drugs, ether has the best action; next in efficiency is the iodine-boric acid powder—the so-called Sulsberger's powder. The dyes come next. The cure will depend on the ability of the aurist to discover the source of discharge and the obstacles to proper surgical drainage.

Edema of the Larynx

Edema of the larynx is, according to Dr. C. D. Sneller, of Peoria, in *Illinois M. J.*, Mar., 1932, the most frequent cause of acute laryngeal obstruction and necessitates immediate and skillful management. It may be a definite clinical entity, but is usually an objective symptom or complication of a more extensive disease. It may arise because of a non-inflammatory or inflammatory condition, occurring within the larynx itself. It may be secondary to inflammation or disease of structures adjacent to the larynx or it may be associated with certain general or systemic diseases.

For the treatment of edema of the larynx, the author considers his most useful and trustworthy methods, in the order of their value: first and of greatest importance, the 8 or 12-hour special nurse, who is prepared for nursing laryngoscopic or bronchoscopic cases; second, the old, faithful bedside suction apparatus; and third, the oxygen tent or tank.

The degree of acute laryngeal obstruction has no direct relation to the seriousness of the condition or disease.

Tracheotomy is the preferred treatment, particularly in acute laryngo-tracheo-bronchitis, when secretions become tenacious and abundant. Intubation may be preferable if edema is not great, if the duration of intubation is short and if tracheo-bronchial secretions are not tenacious and abundant.

Obesity and Leanness

In *Med. Herald, Phys. Therapist & Endocrine Surv.*, Jan., 1932, Dr. H. J. Achard, of Glendale, Calif., states that he has never been able to convince himself that any form of obesity can be altogether actually and purely exogenous. Ordinarily, the maintenance of a fairly constant body weight, even under marked variation in bodily activity and food consumption, is due to an automatic regulating function, and it is justly believed that this automatic regulation is superintended by the endocrine glands.

The tendency to overweight and underweight has a constitutional basis, and constitutional peculiarities are largely determined by the functioning of the endocrines, which are instrumental in transmitting hereditary characteristics. Both obesity and leanness are endogenous; that is, are endocrine problems. Furthermore, it is probably conservative to say that at least 95 percent of all cases of obesity are endogenous and barely 5 percent exogenous.

The problem of obesity cannot be solved merely by prescribing gland substances and regulating the diet. If it were possible to regulate the entire mode of living, something of use might be accomplished. The question of treatment resolves itself mainly into one of prophylaxis.

Bromide Intoxication

In *M. J. & Record*, Dec. 16, 1931, Drs. J. C. Doane and I. G. Weiner, of Philadelphia, who have observed 4 cases in a general medical service, state that bromide intoxication has come to be a very common syndrome as a result of the widespread use of the bromides in the treatment of neuroses, hysterias and neuropsychiatric disorders. As an added cause, the not inconsiderable consumption of "patent" nostrums advertised for "run down nervous systems," "nervous exhaustion" and "insomnia" depend, for their sedative effect, in large part upon their bromide content. These remedies find a ready market in that large group of socially maladjusted individuals who resort to sedative drugs, opiates or alcohol as an escape from the situations in life which they find trying.

In a simple intoxication, the patient shows a dull expression and displays somnolence of varying degrees. He may be buried in sleep for the greater part of the day. He can, however, always be aroused to answer questions, but as

soon as the interrogation is over he again falls asleep. When awakened the patient complains of a dull heavy headache and a feeling of fatigue. There is muscular weakness and a disinclination for exertion. The intellectual faculties are almost in abeyance. Cerebration is slow and confused. There is apathy, no interest being displayed in any of the surroundings. The memory is hazy, and only with difficulty are ideas translated into words. The speech is slow and hesitant. The reflexes are depressed. The gait is weak and feeble, and all movements are slow and prolonged. The pulse is rapid and feeble and the respiration is slow and shallow. The excretion of urine is diminished and there may be present therein a trace of albumin and a few casts.

Treatment is simple and consists chiefly in forcing fluids and, as soon as practicable, large amounts of sodium chloride. In debilitated patients it is not advisable to use sodium chloride at the outset, as it liberates the bromide from the tissues faster than it can be eliminated by the kidneys, and as a consequence the toxic symptoms are exaggerated.

Treatment of Fractures by Skeletal Devices

In *J.A.M.A.*, Mar. 19, 1932, Dr. H. Winnett Orr, of Lincoln, Neb., points out that the modern demand in the treatment of fractures, both from the profession and from the public, is for correct anatomic replacement of injured parts and recovery with a maximum of function.

The higher development of the roentgen-ray and specialization in treatment render unavoidable a more critical attitude toward the treatment and end-results of fractures.

The treatment of fractures by weight and pulley or elastic traction and by less than highly efficient methods of fixed traction in splints has given no more than a rather low percentage of first-class results.

Technic must, therefore, be improved, both in the primary reduction and postoperative treatment of fractures, and in the control of the fracture and the patient during the period of healing.

The use of skeletal traction devices—"ice tongs," pins and even direct fixation of fragments at the point of fracture—and the incorporation of these fixation devices in a plaster-of-paris cast has given better control of the fracture than has any other splint.

The former objection to plaster-of-paris, that it becomes soiled because of discharge from compound fractures and that it must be removed for postoperative dressings, no longer holds. The technic that the author uses in osteomyelitis and has also applied to compound fractures permits the application of a primary dressing which, in most cases, is left undisturbed throughout the entire period of healing.

The author's results following these principles and methods of treatment are better than those reported for other methods.

NEW · BOOKS

A good book is the precious life-blood, embalmed and treasured up on purpose to a life beyond life.—MILTON.

Schamberg & Wright: Syphilis

TREATMENT OF SYPHILIS. By Jay F. Schamberg, A.B., M.D., Professor of Dermatology and Syphilology in the Graduate School of Medicine of the University of Pennsylvania; etc. and Carroll S. Wright, B. Sc., M.D., Professor of Dermatology and Syphilology in the Temple University School of Medicine; etc. Illustrated. New York and London: D. Appleton and Company, 1932. Price \$8.00.

The appearance of this important work by two distinguished syphilologists should be noted with much satisfaction, not only by those who specialize in the treatment of luetic affections but by the general practitioner; it is questionable if, except in its initial stages, syphilis should be specially associated with dermatology but rather regarded as a systemic infection with multifiform ramifications and manifestations.

Although there were previous experimenters with arsenic, Ehrlich's definite work with the arsenobenzenes, promulgated in 1919, revolutionized syphilotherapy. Although the authors devote seven chapters to the older (and still valuable) mercurial treatment, the real value of their book lies in their exposition of the efficacy of the arsenical and bismuth preparations and the technical details of the administration of these drugs and their various compounds, especially the arsphenamines with sulpharsphenamine, bismuth arsphenamine sulphonate (Bismarsen) and tryparsamide. Fourteen chapters are devoted to the development, therapeutic effects, reactions and clinical pictures following the administration of these compounds, which the authors classify under the general term, arsenobenzenes.

Without being dogmatic and guardedly refraining from expressing too positive opinions, yet the authors, while regarding arsphenamine as the drug of choice, also consider bismuth as a drug superior to mercury. The general method adopted by them in the treatment of primary and secondary syphilis consists in the weekly injection of an insoluble bismuth salt and neoarsphenamine the treatments being given at intervals of three or four days.

In regard to sulpharsphenamine the authors do not recommend the drug except in the special cases mentioned by them, for it gives no superior clinical results to the arsphenamines, is apt to cause severe local pain and frequently severe skin reactions.

Bismuth arsphenamine sulphonate (Bismarsen), intramuscularly, is stated to be of particular value when, for any reason, intravenous therapy is contraindicated or difficult; it is also valuable in latent syphilis and may be used with

the knowledge that its therapeutic value is unquestionable.

The volume is replete throughout with clinical data and statistical matter, which will be of the utmost value to practitioners in the management of every phase of syphilitic disease. The book itself must be consulted to appreciate the wealth of these details. There is no work, so far as we know, in English, so thoroughly descriptive of the modern treatment of syphilis and so rich in technical information. While, to a great extent, the authors write of their own experiences, yet the literature has been thoroughly combed and the opinions of others freely contrasted with the authors' personal views.

This book is recommended to all practitioners of medicine as a thorough and practical exposition of the modern treatment of syphilis. It is clearly printed, handy to use and amply indexed.

McDonagh: Nature of Disease

THE NATURE OF DISEASE JOURNAL. By J. E. R. McDonagh, F.R.C.S. Volume 1, 1932: London: William Heinemann, Ltd. (Through Chicago Medical Book Company, Congress and Honore Streets, Chicago.) Price \$3.00.

While this publication bears the name, "Journal," it is not, in fact, a medical magazine, but the first of a projected series of additions to the author's "The Nature of Disease," intended to keep that remarkable work up to date by adding new material, the result of recent clinical and laboratory researches, each year, with the idea that, when several of these paper-covered sections have appeared, they can be bound into a permanent volume.

The first two volumes of McDonagh's surprising ideas were reviewed in CLIN. MED. AND SURG. for October, 1929, on page 772, and a review of the third volume appeared on page 74 of our January, 1932, issue. Those who are interested are advised to reread those reviews at this time.

This serial volume, consisting of 172 well printed pages, deals with "Thrombosis" (22 pages) and "Disease and Infection" (the rest of the volume, except for a brief prologue and epilogue).

From the start, the author reaffirms his strengthening certainty of the unitary nature of all disease (electro-chemical disequilibrium) and his growing conviction that most of it is caused by intestinal toxicosis. He continues to make the startling statements, which his readers have learned to expect, such as, that diabetes is not a disease, but merely a symptom, and that in-

sulin has nothing directly to do with carbohydrate metabolism; that thrombosis is nothing more than the process of "gelation," described in his earlier writings; that blood platelets are not corpuscular in character, but merely large groups of hydrated protein particles; and that pulmonary embolism is a misnomer, as the lesion is formed *in situ*. The section on Thrombosis contains 10 case reports.

The section on Disease and Infection is an elaboration of his stimulating article, "The Nature of the Common Cold and Influenza," which appeared in our September, 1932, issue on page 641, enriched with reports of 54 clinical cases and 23 laboratory experiments, tending to substantiate his thesis of the pleomorphism and interchangeability of many of the well known pathogenic microorganisms.

All in all, McDonagh's ability to express his ideas in comprehensible language seems to be steadily improving, and this contribution should give really practical help to those physicians who are not wedded to the belief that they have nothing more to learn. All who have the author's earlier volumes will want these serial additions; and those who do not have them may well purchase this publication, in order to get some idea of a line of thought which may possibly mark an epoch in the practice of medicine.

Boyd: Pathology

A TEXT-BOOK OF PATHOLOGY: An Introduction to Medicine. By William Boyd, M.D., M.R.C.P. Ed., F.R.C.P. Lond., Dipl. Psych., F.R.S.C., Professor of Pathology in the University of Manitoba; Pathologist to the Winnipeg General Hospital, Winnipeg, Canada. Illustrated with 287 Engravings and a Colored Plate. Philadelphia: Lea & Febiger, 1932. Price \$10.00.

Pathology in relation to the living patient is the guiding motive of the author's treatment of the subject. Clinical symptoms are everywhere correlated with lesions, and the vital processes which underlie end-results are clearly followed and elucidated. The author everywhere emphasizes physiology, looking upon morbid changes as the result of disordered functions; from this point of view, gross and microscopic morbid material becomes a living framework in a living body.

This textbook is intended for students of pathology, to be used when they are studying the clinical aspects of disease, which the author considers the proper time to take up the study of the subject. Each discussion of disease is, therefore, introduced with a brief description of the clinical symptoms. In this way the work is intended to serve as an introduction to practical medicine. But the practitioner who wishes to renew acquaintance with the main facts of morbid anatomy will find this volume to answer admirably his purpose.

There are two main divisions: Part I, consisting of 13 chapters, deals with general pathology and the etiologic agencies underlying disease and morphologic changes. Part II, the more important part of the book, has 33 chapters dealing with the diseases of regions and systems.

The author's style is attractive and lucid; illustrations are supplied where it is necessary to clarify difficulties in textual descriptions; the typography and bookmaking are good and the book of handy size for reading, with an ample index. Altogether it may be recommended as an excellent presentation of pathology in a manner which should be very acceptable to students and clinicians—a type of work which is badly needed by many, if not most, physicians.

Engelbach: Endocrine Medicine

ENDOCRINE MEDICINE. By William Engelbach, M.D., F.A.C.P., B.S., M.S., D.Sc., Professor of Clinical Medicine, St. Louis University School of Medicine, 1911-24; Physician-in-Chief, St. John's Hospital, 1909-24; Member of Staff St. Louis, City, Jewish, etc. With a Foreword by Lewellyn F. Barker, Professor Emeritus of Medicine, The Johns Hopkins University School of Medicine. Three Volumes and an Index Volume. Volume I—General Considerations. Volume II—The Infantile Endocrinopathies; The Juvenile Endocrinopathies. Volume III—The Adolescent Endocrinopathies; The Adult Endocrinopathies. Springfield: Charles C. Thomas, Publisher. 1932. Price \$35.00.

A medical authority of international reputation, in a recently delivered public lecture, remarked that endocrinology is as potent in sweeping aside many established views of disease as was the discovery of the bacterial origin of infectious diseases at the end of the last century. Few will differ from that opinion, when they consider the revelations of scientific medical and biologic researches during the past quarter-century or more, as regards the multifarious physiologic and pathologic activities of the internal gland secretions on both the soma and psyche, not excepting the germ plasm.

Thus endocrine medicine has a tremendous importance for every physician who desires to be fully informed on the progress of medical science in general. Although several excellent synopses of endocrinology have already been published, the system compiled by Dr. Engelbach is very welcome, because the aspects of the science are kaleidoscopic, as witness the recent findings in the endocrinology of the female reproductive system, in the action of the adrenal cortex, etc., and it is a great advantage in a work of this kind that it should be up to date.

The work is frankly a review, annotated according to the experience of the author and those who assisted him. So far as we can find, it gives all the pertinent knowledge of endocrinology, digested from the vast and ever-increasing literature. The author has confined himself in the present volumes to the thyroid, the pituitary, the gonads, the parathyroids and thymus; the suprarenal medulla, pancreas and liver being reserved for a future volume.

The selected glands are discussed formally, first, as individual entities; second, as related to each other interhormonally; third, as related to nonendocrine systems.

The first volume is devoted to general considerations of the endocrine system as a whole, their physiology, functions and relationships.

The discussion proceeds in the order of the period of life in which each gland most decidedly affects tissue differentiation, development and functional activity.

In the second volume the infantile and juvenile endocrinopathies are considered, both being presented with a wealth of detail. The third volume deals with endocrinopathies in the adolescent and adult.

In a complex and diffuse work of this kind, which is somewhat of the nature of a system of medicine, the remarks of a reviewer must necessarily be limited. There is evidence of a vast amount of research into the literature, of careful and judicious selection, of concise expression of essentials, of presentation of convincing clinical cases and illustrations and of a homogeneity which binds the successive parts together in a correlated whole. The work should be regarded as authoritative in setting forth the signs of normal and the symptoms of abnormal glandular activities; for the etiology and diagnosis of endocrinopathies and their reflections in the other organic systems. It is not too much to say, indeed the author rather stresses it, that too great a tendency to refer all systemic irregularities to endocrinopathies should be carefully avoided. After all, though much is known and a great deal guessed about the action of the internal secretions, what there is still to know about fundamental somatic and psychic pathogenesis is much greater.

This system will, by its merits, take a leading place as an exposition of our present (1931) knowledge of endocrinology (to the extent to which it is limited) and as a text for the diagnosis and differentiation of endocrinopathies and their correlations. The therapeutics of these conditions is another matter, and here the art of medicine has not kept pace with the science. Practitioners are still handicapped in the treatment of many manifest endocrine disorders. While the volumes, therefore, should be in every medical library and available for reference to every progressive scientific physician, especially endocrinologists, they will not add materially to the armamentarium of the practitioner of everyday medicine.

A word should be said for the excellence of the printing and of the general book work.

Økland: Sex Determination

WILL IT BE A BOY? Sex-Determination According to Superstition and to Science. By Dr. F. Økland, Assistant Professor, Aas, Norway. Illustrated with Figures. New York: The Century Co. 1932. Price \$1.50.

One rather wonders why this little volume was written, for the author seems to feel that, like the famous treatise on snakes in Ireland, the subject might have been covered by the words, "There is no such thing as sex determination," instead of using 15,000 words.

The book is a hasty and superficial sketch of the various beliefs and superstitions regarding the causation of sex, with reiterated statements that they are all wrong, foolish and ridiculous. About one-third of the text is used in a very elementary presentation of the chromosomal nature of inheritance. Whenever the author mentions any of the possible future developments

in the field of sex determination, he carefully and obviously refrains from giving any details.

This book can be recommended to second-year high school students and to laymen who are wholly unfamiliar with modern scientific findings, who are interested in the subject, but its appeal to thoughtful adults will, one imagines, be limited, though its deceptive title may result in many sales.

Moynihan: Medical Progress

THE ADVANCE OF MEDICINE. By the Right Honourable Lord Moynihan, K.C.M.G., C.B., President Royal College of Surgeons of England. The Romanes Lecture Delivered in the Sheldonian Theatre, 1 June 1932. London and New York: Oxford University Press. 1932. Price \$1.00.

Physicians have a tendency to be so close to their individual problem that they cannot see the forest of their professional background, because of the abundance of the trees of specific cases.

It is, therefore, well that every medical man should, from time to time, read something like this beautifully written, scholarly and stimulating little book of Lord Moynihan, in order to obtain a birdseye view of his profession and orient himself in it and in the world at large.

A brief sketch of some of the high spots of medical history is followed by an outline of some of the things which should (and probably will) be done to consolidate the science and art of medicine, along with certain forecasts as to possible future developments.

A book to be kept on every physician's desk and dipped into from time to time, to keep the mind and heart ventilated.

Hyman and Parsonnet: Heart in Middle Life

THE FAILING HEART OF MIDDLE LIFE: The Myocardosis Syndrome, Coronary Thrombosis, and Angina Pectoris. With a Section upon the Medico-legal Aspects of Sudden Death from Heart Disease. By Albert S. Hyman, A.B., M.D., F.A.C.P., Cardiologist, Beth David and Manhattan General Hospitals; Attending Physician and Cardiologist Hospital for the Aged; etc. and Aaron E. Parsonnet M.D., C.M., F.A.C.P., Attending Physician and Cardiologist, Newark Beth Israel Hospital; Cardiologist, Evening Heart Clinic, Newark Beth Israel Hospital; etc. With a Preface By David Riesman, M.D., Sc.D., F.A.C.P. With 166 Illustrations, Some in Colors. Philadelphia: F. A. Davis Company. 1932. Price \$5.00.

Whatever the reason, heart disease today is the leading cause of death and its growing menace makes it most important that physicians, especially family physicians, should be familiar with the signs and symptoms of those middle-life forms of heart disease that often do not manifest themselves by clearcut physical signs. Such are here classed under the general term, myocardosis.

The authors particularly endeavor to differentiate between degenerative conditions due to the natural wearing out process as the individual

advances in age, and true diseases of the heart and blood vessels. This differentiation demands not only utilization of the best clinical observation and perception through the physician's trained senses, coupled with a knowledge of the patient's history, but also the use of at least some of the modern instruments of precision. Too great reliance on either method leads to error.

The authors point out that the newer enlightenment and apprehension of the public regarding heart disease and the increase of preventive methods, especially periodic examinations, while giving increased opportunities for the early recognition and treatment of heart diseases, at the same time make it imperative that the physician should be competent and equipped to recognize them.

The subject matter of the book has been divided into six general sections: (1) The Coronary Arterial System in Health and Disease; (2) The Myocardosis Syndrome; (3) Coronary Thrombosis and Occlusion; (4) The Electrocardiographic Changes Associated with Coronary Arterial Disease; (5) Angina Pectoris; (6) The Medicolegal Aspects of Sudden Deaths from Heart Disease.

The treatment of these matters is purely clinical and case reports are introduced, when necessary, to elucidate and strengthen the authors' discussions. The sections on coronary thrombosis and occlusion and on angina pectoris strike us as being particularly well treated.

The book is timely, owing to the importance of failing heart conditions in the middle and later decades, and the general practitioner, for whose use it has been specially written, should find it in every way practicable and serviceable. The illustration and book work are excellent and there is an extensive bibliography at the end, covering the general subject.

Fisher and Fisk: Personal Hygiene

HOW TO LIVE: Rules For Healthful Living Based on Modern Science; Authorized by and Prepared in Collaboration with the Hygiene Reference Board of the Life Extension Institute. By Irving Fisher, LL.D., Professor of Political Economy, Yale University and Eugene Lyman Fisk, M.D., Medical Director, Life Extension Institute (1913-1931). Nineteenth Edition Completely Revised. New York and London: Funk & Wagnalls Company. 1932. Price \$2.00.

In our October issue, for 1925, we reviewed the eighteenth edition of this volume, which is rather generally looked upon as one of the most reliable and authoritative books on individual health.

The general arrangement and contents of the work have not been changed in this nineteenth edition, but the chapter on "Air"—including sleeping requirements and outdoor sleeping—has been amplified; the chapter on "Food" has been enlarged; intestinal poisoning is dealt with in more detail; mental hygiene is given more space; weight regulation and simple, effective exercises are considered; and a number of other improvements have been made. The typography is good and the new binding is of attractive fabricoid.

As periodic health audits are assuming greater

and greater importance, it becomes increasingly necessary that physicians shall be able to give their patients sound advice for healthful living and, perhaps, recommend a book for them to study along this line. This volume will be of great value to any physician, both professionally and personally, and is one which can be recommended to lay patients with entire confidence.

Crowe: Vaccine Treatment of Rheumatic Diseases

HANDBOOK OF THE VACCINE TREATMENT OF CHRONIC RHEUMATIC DISEASES. By H. Warren Crowe, D.M., B.Ch. (Oxon.), M.R.C.S., L.R.C.P., Director of the Charterhouse Rheumatism Clinic; Late Cons. Physician (Vaccine Treatment) Yorkshire Home for Incurable and Chronic Diseases. Second Edition. London and New York: Humphrey Milford, Oxford University Press. 1932. Price \$0.80.

The author discusses the results obtained at the Charterhouse Rheumatism Clinic in South London and other similar clinics, with the vaccine—especially stock vaccine—treatment of chronic rheumatism and chronic arthritis. These results the author states are quite satisfactory in the large majority of cases.

Those interested in this mode of treatment of rheumatic diseases (and that should include all internists and those in general practice), will find the details given here, in a manner that can be followed by any practitioner.

Bode and Ludwig: Chemistry for Physicians

CHEMISCHES PRAKTIKUM FÜR MEDIZINER. Von Dr. Hans Bode und Dr. Hans Ludwig, Assistenten am Chemischen Institut der Universität Kiel, Leipzig und Wien: Franz Deuticke. 1932. Price M 4.—, geb. 5.— S 6.—, geb. S 7.50.—.

Laboratory examinations and diagnosis and some of the newer developments in the practice of medicine, such as the vitamins, constantly indicate the physician's need for an acquaintance with chemistry. This is a short synopsis of the essential facts of inorganic and organic chemistry and, for those who read German, should meet the need.

Surgical Clinics of North America

THE SURGICAL CLINICS OF NORTH AMERICA. August, 1932. Volume 12—Number 4. Mayo Clinic Number, Philadelphia and London: W. B. Saunders Company. 1932. Price, Paper, \$12.00; Cloth, \$16.00 Per Clinic Year, February 1932 to December 1932.

The August 1932 number of the "Surgical Clinics of North America" is a Mayo Clinic number, 40 members of the staff of the Clinic or of the Mayo Foundation, University of Minnesota, contributing papers.

Drs. E. S. Judd and C. O. Heimdal open with a short description of 11 cases of meconic cysts which have been treated at the Clinic. Dr. M. S. Henderson writes on "Trimalleolar Fractures of the Ankle," sometimes called

"Cotton's Fracture," on the basis of a personal case. Drs. H. I. Lillie and H. L. William furnish a paper on "Pain as a Symptom of Thrombosis of the Internal Jugular Vein," and the latter author writes on "Suppurative Disease of the Frontal Sinuses with Sequestrum of the Outer Table." Other interesting clinical papers are those by Drs. W. Walters and J. B. Priestley on "Malignant Renal Neoplasms" and some other unusual kidney conditions; by Drs. A. E. Brown and V. S. Counsellor on "Jaundice With Acute Appendicitis" and by Drs. H. E. Essex and J. S. Lundy on "Spinal Anesthesia."

Most of the contributions to this number concern unusual or rare clinical cases, of more interest as curiosities than to the general practitioner.

Kingzett: Chemical Encyclopedia

CHEMICAL ENCYCLOPAEDIA. An Epitomized Digest of Chemistry and Its Industrial Applications. By C. T. Kingzett, F.I.C., F.C.S., *One of the Original Founders of the Institute of Chemistry; Author of "The History, Products and Processes of the Alkali Trade," "Chemistry for Beginners and School Use," etc.* Fifth Edition. New York: D. Van Nostrand Company, 250 Fourth Avenue. 1932. \$10.00.

This recent fifth edition of the "Chemical Encyclopedia" is highly recommended, not only for chemists, but for those engaged in other professions and businesses as well. The author states, "My aim has been to prepare an epitomized digest of chemistry and its industrial applications, in a form which should be useful as a work of reference by all classes of the community." One important feature of the compilation which makes it more valuable than most other compendia of this sort is the scope of the information given, which is sufficient to supply all the information needed in a great percentage of cases. As a physician's reference book, the Encyclopedia will many times pay its cost.

E. H. V.

Conybeare: Medicine

TEXTBOOK OF MEDICINE. By Various Authors. Edited by J. J. Conybeare, M.C., M.D. Oxon., F.R.C.P., Assistant Physician to Guy's Hospital, Second Edition. New York: William Wood & Company, 156 Fifth Avenue. 1932. Price \$7.00.

This textbook, a compilation of contributions from several teachers and clinicians throughout the British Empire, was intended to provide the medical student, within as small a compass and at as low a price as possible, with the essentials of medicine. This aim is excellently fulfilled. The volume is essentially one for the student, especially the British student studying under a definite curriculum. All the main facts of the multifarious fields coming within the scope of medical knowledge are presented concisely, correctly and authoritatively, giving a coordinated and correlated outline of the whole subject.

There is an excellent index and the book-making is good.

Wodlinger & Salmonsens: Survey of Vitamins

BIBLIOGRAPHICAL SURVEY OF VITAMINS, 1650-1930. With a Section on Patents by Mark H. Wodlinger. Compiled by Ella M. Salmonsens, Medical Reference Librarian, the John Crerar Library, Chicago. Chicago: Mark H. Wodlinger, Publisher, 86 East Randolph Street. 1932. Price \$10.00.

This is a very comprehensive bibliography (containing approximately 12,000 references) in the vast field of vitamin literature, which no doubt will prove of value to research workers in this field. It is arranged according to year of publication, under the subheadings of the different vitamins, and then alphabetically according to author. No one experienced in digging up bibliographic data can really appreciate the amount of time necessary and the difficult work connected with the compilation of an extensive reference book of this kind and much credit is due to the author and his associate for their thorough and efficient efforts. In future editions it is hoped that cross references will be added which would make this volume more useful to the busy workers.

C. F. L.

White House Conference on Child Health and Protection: Hospitals

HOSPITALS AND CHILD HEALTH. Reports of the Subcommittees on Hospitals and Dispensaries: Convalescent Care; Medical Social Service. White House Conference on Child Health and Protection. New York and London: The Century Co. 1932. Price 2.50.

In *Hospitals and Child Health*, a publication of the White House Conference on Child Health and Protection, there is presented a mass of valuable and suggestive information, which was secured by three subcommittees of the Conference, regarding the relationship of hospitals towards the health and welfare of children.

The first part surveys the situation in children's and orthopedic hospitals, dispensaries and posture clinics. Of over 900,000 hospital beds in the United States about 81,000 are for children.

The second part considers the situation in convalescent homes and offers practical suggestions for improving the service and increasing the number making use of convalescent care. Hospitals could enlarge their usefulness by employing convalescent care to a greater extent. The final part of the book deals with medical social service and sums up the conditions in rural and urban communities, as well as indicating how these could be improved as regards sick children.

The volume contains a large amount of dependable information, collected at first hand from reliable sources, sifted and classified by competent specialists. It should be of great interest and value to all those in any way connected with the welfare of children.

MEDICAL · NEWS



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Courtesy, *Medical Life*.

Passing of Sir Ronald Ross

Sir Ronald Ross, discoverer of the part played by the anopheles mosquito in the transmission of malaria, passed to his rest in London, Eng., September 16, aged 75 years.

Dr. Ross was born in India in 1857, and educated in England. He wanted to be an artist, but his father persuaded him to study medicine. He entered the Indian Medical Service in 1881 and began his epoch-making studies in tropical medicine (though he continued to express his artistic talents in the writing of poetry, and was devoted to mathematics), in the course of which he encountered Manson, who, with Laveran, had suggested (but not proved) the mosquito as the vector in malaria. On August 20, 1897, Ross saw the malarial parasites in the stomach of a mosquito, and this settled the question. He

celebrated his achievement in virile stanzas.

For his invaluable discovery, this great physician and scientist received the Nobel Prize in medicine in 1902, as well as many other honors and decorations, and took his place as one of the illustrious heroes of medical history.

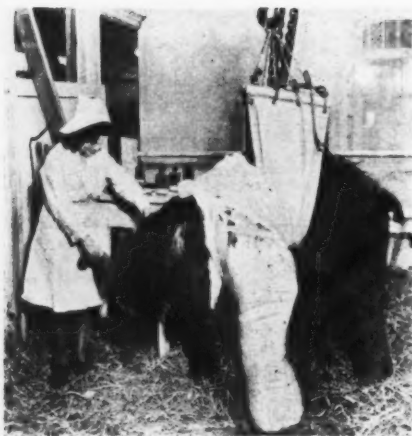
Look Out for Psittacosis (Parrot Fever)!

The United States Public Health Service advises all persons to avoid contact with recently shipped or acquired birds of the parrot family. Several cases of psittacosis, or parrot fever, are being reported in various parts of the United States. Reports of 5 cases and one fatality have recently been received from Minneapolis, Minn. Another case has been reported from Boise, Idaho. There have been 12 cases of parrot fever, with 6 deaths, reported in California between December 1, 1931, and February 10, 1932.

An outbreak of psittacosis occurred in the United States during the Winter of 1929-30. One hundred and sixty-three (163) cases were reported at that time, with 33 deaths. Practically all of these cases were traced to association with recently acquired parrots and parakeets.

November Meetings

Two important medical meetings, of national scope, will be held in November: The American Society of Tropical Medicine will meet in Birmingham, Ala., November 16 to 18 inclusive (address the secretary, Dr. H. E. Meleney, Vanderbilt University School of Medicine, Nashville, Tenn., for particulars); and at the same time and place the Southern Medical Association will hold its annual meeting. Mr. C. P. Loran, Empire Bldg., Birmingham, Ala., will send information.



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A Large Fracture

Reducing a fracture in a 350-pound patient is no joke, in any case, particularly when that patient is an infant and will not cooperate.

Zoobu, the eleven-month-old baby in the animal incubators in the steel pier at Atlantic City, N. J., broke a leg (or was it an arm?) not long ago, and it took twelve men, with a block and tackle, to reduce the fracture and put on the cast, which the little patient is here shown wearing, we hope with pride, but rather obviously not with joy.

A Winter Vacation

A winter vacation on the Gulf Coast offers enticing possibilities and one of the most interesting places, for those who seek

a more or less primitive retreat is Grand Isle, whose Chamber of Commerce has an office in the New Orleans Bank Building, New Orleans, La., and will be glad to send full particulars.

Modern Medicine

We offer our cordial and fraternal greetings to our new contemporary, *Modern Medicine*, whose subtitle is, "The News Magazine of Medicine."

The announced object of this pleasing and informative publication is to present the new discoveries, in the field of medicine and the allied sciences, in the breezy and arresting style of the news writer, so that it may be made interesting, not only to physicians, but to laymen as well. In other words, the purpose is to "make literature out of science."

This purpose is highly laudable. Something like that has needed doing thoroughly for some time—we have made some efforts in that line ourselves—and if the succeeding numbers come up to the standard set by the first, we predict large success for our youngest literary brother.

A Rat Story

The importance of milk in the diet is set forth, in the form of a clever little story, in a booklet issued and sent free to physicians by the Evaporated Milk Association, 203 N. Wabash Ave., Chicago. Of course, it plays up evaporated milk, but it offers a useful method of educating people in matters of nutrition and can be procured, in quantities for distribution, from the Association.

I wish to tell you how much I enjoy *CLINICAL MEDICINE AND SURGERY*, and particularly the editorial pages. Seldom does one find a technical magazine in any field with such scholarly editorials. Medical study tends to narrow, so it is very meet that "ye editor" should lead us aside from symptoms and treatment and give us a taste of a broader life and other cultures. —G. P. L., M.D., Westerville, O.

There is no better medical journal in existence than *CLINICAL MEDICINE AND SURGERY*. —L. H. H., M.D., Santa Cruz,

I have been subscribing to *CLINICAL MEDICINE AND SURGERY* almost since its inception and am still in love with it . . . The articles make for efficiency and tend to keep one up with the times. —A. P. M., M.D., Moss Point, Miss.

Send · For · This · Literature

To assist doctors in obtaining current literature published by manufacturers of equipment, pharmaceuticals, physicians' supplies, foods, etc., CLINICAL MEDICINE AND SURGERY, North Chicago, Ill., will gladly forward requests for such catalogues, booklets, reprints, etc., as are listed from month to month in this department. Some of the material now available in printed form is shown below, each piece being given a key number. For convenience in ordering, our readers may use these numbers and simply send requests to this magazine. Our aim is

to recommend only current literature which meets the standards of this paper as to reliability and adaptability for physician's use.

Both the literature listed below and the service are free. In addition to this, we will gladly furnish such other information as you may desire regarding additional equipment, or medicinal supplies. Make use of this department.

When requesting literature, please specify whether you are a doctor of medicine, dentistry, medical student, or registered pharmacist, or a nurse.

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- D-725 The Hormone — November, 1932. The Harrower Laboratory, Inc.
- D-726 The Acid-Base Balance of the Body; Its Relation to Health and Disease. The BiSoDol Company.
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